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THE
NEW-YORK
MEDICAL AND PHYSICAL
JOURNAL.

EDITED BY

JOHN B. BECK, M.D.

Professor of Materia Medica in the University of the State of New-York; Corresponding Member of the Medical Society of London; Member of the Literary and Philosophical Society of New-York; of the Lyceum of Natural History of New-York, &c. &c.;

DANIEL L. M. PEIXOTTO, M.D.

One of the Physicians to the City Dispensary;

AND

JOHN BELL, M.D.

Surgeon to the New-York Eye Infirmary.

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ART. I. *The Annual Address, delivered before the Medical Society of the State of New-York, at the Capitol, in the City of Albany, February* 8, 1826. By JAMES R. MANLEY, M. D. President of the Society.

GENTLEMEN OF THE MEDICAL SOCIETY,

BELIEVING that I am more indebted to your partiality than to my own desert for this opportunity of addressing you, I should feel no small measure of embarrassment, were I forbidden to presume upon the kindness which you have already manifested. Called to occupy a station which has been occasionally filled by the most distinguished medical talent in this country, it is the monition both of interest and of duty to accept it with diffidence, and to use its influence with discretion.

The medical community of this State, since the incorporation of this Society, whose business it is to supervise and regulate for the good of the whole the police of the medical profession, has assumed a more fixed scientific character than could have been reasonably anticipated for many years, without its agency. Without appearing to control, and without imposing any other restraints upon its members than such as commend themselves to the understanding and the conscience of every enlightened individual, it has silently but successfully operated such a change in medical education as cannot fail, if properly improved, to make the character of the physician honourable and respected. But much yet remains to be done. The progress of improvement must of necessity be slow, where philosophy has, at every step, to contend with ignorance and prejudice; and where, as in the medical profession, the pecuniary interests of a large majority of its members are best consulted by perpetuating them. No man can know precisely the measure of his own ability; his estimate may be, and no doubt sometimes is, correct; but when it is so, it is purely accidental: hence it is, that, for the most part, men of education are divided into two great classes; those who are distrustful of their own powers, and those whom vanity prompts to overrate them. Literary and scientific associations, by bringing various degrees of talent into collision, enable the possessors to correct that false estimate which their timidity or their confidence had formed, by showing them in relation; and the emulation of the young aspirant after distinction is so disciplined by the comparisons thus frequently instituted between himself and others, that assurance on the one hand, and an overweening modesty on the other, are made to give place to a well-tempered confidence, which is neither inefficient through fear nor offensive by its arrogance; and if the benefits which this Society has conferred were restricted to those arising out of this single circumstance, it could not fail to recommend itself to general patronage, seeing that the evidence is before the public. But it has higher, and I may almost say holier, objects;—objects in which all classes of the community, whether they realize it or not, have a deep and permanent interest: to it the law gives a controlling influence over the various medical associations throughout this State, and from it the people have a right to require the exercise of the most jealous vigilance in all matters relating to the education of their physicians; for to them, under Providence, are committed their dearest interests; and as in the whole catalogue of social duties there is none which involves more weighty obligations, so mere indifference to this object magnifies itself into an offence against society, which admits no apology, because the evils which it entails admit no reparation. I hope therefore to be excused, if, instead of reading a paper on a particular disease or individual remedy, I occupy your time by some remarks on medical education and character, in so far as they are susceptible of improvement by legal provision.

The profession which we have chosen is one of awful responsibility: it puts in requisition, and gives continued employment to all the powers of the understanding, and all the kindly affections of the heart. The physician is not only obliged to be well informed, but his knowledge must at all times, be at command—not only to act with decision, when occasion requires, but to do ungracious acts, and such as will jeopardise his reputation if success should not attend the results; to be well furnished for his profession is not only his duty, but his deficiency is his sin; his ignorance is his crime: he is not only obliged to administer relief, but the relief must be extended in the best and speediest manner, and with the least possible suffering; and if any thing can render the duty still more arduous, it is the conviction, that his feelings must be so disciplined by his judgment as in no case to be permitted to control it. It is his exclusive business to shield from the dangers and assuage the pains of disease; to furnish the means which alone can give to life its enjoyment, or mitigate the sufferings which must inevitably terminate in death; and to give additional force to all these responsibilities, there are no human sanctions to enforce the obligations.—He who made him, and conscience his only representative, can estimate his deficiencies or rebuke his neglect: how important then,—how vitally interesting to the public, is the subject of medical education! and how essential is it, that its foundation should be laid in a deep and abiding sense of moral obligation!

The time was, when a moderate share of intellect, properly directed, was sufficient to insure to the possessor a large measure of reputation; but it must be remembered, that such reputation was but the halo created by the mists of ignorance which its industry was endeavouring to dispel. In the early settlement of a large part of this State, and till within a few years, it was not to be expected that either leisure or opportunity would be afforded to medical men to improve their profession by reading or observation ; the pressure of those ordinary avocations, so essential to their comfort in a new country, in a great degree deprived them of the privilege of study ; and hence, with some few honourable exceptions, (among whom are some of the members of this Society) they were obliged to rest satisfied with the results of their own experience, and grow old in the tedious record of insulated facts, presumed to be extraordinary, because, from the limited range of their elementary information, they were difficult to be understood. But a new scene has opened upon us : the rapid progress of internal improvement, the spirit of commercial enterprise, the more general diffusion of wealth, and above all, the liberal patronage extended to almost every species of intellectual culture, have combined to dissipate the murky atmosphere which heretofore magnified every object seen through its deceptive medium. Character in medicine must now be measured by comparative standards, as in all other sciences ; and precisely, in proportion to the facilities by which it may be rated, must the standard be elevated, in order to give to it the influence of example, or to excite our admiration. Genius and acquirement are now estimated according to their real amounts, and neither ignorance nor prejudice are permitted to distort their true proportions. A medical reputation, though in years past it might have been easily acquired, must now be maintained by severe application to study and industrious habits of observation ; and those who fail in either, or who content themselves with their attainment, betray not only a neglect of the progressive improvements of the science, but a contempt for the intelligence of the public, which will not fail of its desert, whenever their claims to distinction are questioned.

It is necessary, therefore, that those who devote themselves to the practice of physic, should be fully educated, in order to warrant the expectation of acquiring character in their profession ; and as an indirect stimulus to their exertions, they ought to be made acquainted with the difficulties which lie in their way, that they may not in disgust, when too late to retrace their steps, abandon the high road to honourable preferment, and study to compensate themselves for their disappointment, by converting the privileges they possess into mere trade-stock to accumulate wealth. It is a truth, which if not immediately obvious, experience will soon teach, that the path to wealth, if not to eminence, is best found in a spirit of worldly accommodation, which consults the prejudices rather than the reason of the multitude; for, however ignorant that multitude may be, (and they are not scandalized by being charged with total incapacity to judge of medical character,) there is not an individual of them who will not accept a deference to his opinions, as a compliment to his intelligence. It is also true, that the profession of physic addresses itself to the heart, rather than to the understanding—to the feelings, rather than the judgment; and that this is the fruitful source of much of the difficulty with which the physician must contend, in his pursuit of medical distinction. Sympathy with suffering makes a firm friend; hence the intelligent discharge of the obligations of duty are merely acknowledged or forgotten altogether, while a tythe-part of the services, rendered with apparent and officious interest for the distressed, is received with a gratitude which memory will always cherish. So universal is the operation of these principles, that the uninformed, the impudent, and the cunning, who *per fas aut nefas* become legally authorized to practice our art, make their advantage of them, to conceal their ignorance or to mask their hypocrisy; and they so admirably answer either purpose, that they are successful for both. He who has a well-grounded confidence in his ability, who scorns the petty shifts to which imposture in any form will resort, and who depends solely on the conscientious discharge of duty well understood;—with too much integrity to cherish the despondency, and too much candour to inspire a confidence which he knows must be disappointed, is prompted to leave the practice in disgust, and rely on the labours of the closet and the hospital to form his character; while the mountebank attains both wealth and celebrity by the abandonment of every thing which can give to the profession its excellence.

If these remarks are just—if the obligations of the physician are so numerous, and the confidence of the public so liable to be misplaced—if the difficulties he must encounter be so great, and his incentives to exertion are so small—if the temptations to neglect the great end of his vocation be so strong, and the restraints which the law imposes are so weak—it becomes our duty, so far as it is in our power, to correct this deceptive estimate of character, and to cherish the talents which adorn, and the morals which alone can give true dignity to the profession; while, at the same time, we guard with unceasing vigilance every avenue by which unworthy persons may enter, and possess themselves of its privileges. We are constituted, by law, the guardians of the public interests, in so far as these interests can be affected by medical education; and to what extent such responsibility reaches, I almost fear to say: let conscience answer.

Perhaps there never was a time since the organization of this Society, when the calls of duty were more imperative than at the present: the rivalries of the numerous schools for medical instruction, distributed throughout the country, many of them offering very limited courses of instruction—the neglect on the part of most of these schools to require from the candidates any evidence of proficiency in those studies which should form the ground-work of a medical education—the facilities with which degrees in medicine are obtained—the inducements offered to young men to enter themselves as pupils, while they are deficient in the elements of general science, which alone will enable them to study to advantage when their periods of pupilage shall have expired, and especially that mistaken liberality of our statute, which, while it gives full effect to the evils above enumerated, is calculated to perpetuate them,—all threaten to degrade and deprave the medical character; and, unless this Society suggest some decisive measures to arrest this wholesale manufacture of physicians, by more particularly determining the qualifications which shall admit to license in this State, the consequences must be alike disastrous to the respectability of the profession, and the interests of the public; since the law, in its present form, not only is evaded with facility in its most wholesome provisions, but accords to every person the right to practice, who possesses a Diploma, no matter from whence derived, provided it be filed on record in any of the counties of this State.

It would scarcely be expected, that the rivalships existing among the medical schools, could be enumerated among the causes calculated to impair the medical character ; but a little consideration will satisfy the most prejudiced, that they not only are, but that, so long as the emoluments of teaching depend on the number of pupils, they must continue to be of injurious tendency ; unless the restraints of law shall be made to countervail their influence. If medical schools were all furnished with commanding talent in the teachers—if they all offered complete courses of instruction—possessed all those facilities for their illustration which are essential to a full education—required such terms of pupilage as are necessary to its acquisition—and if their rivalries were disinterested, except so far as the dignity and usefulness of the profession were concerned, they would be so many sources of gratulation rather than of serious apprehension. But experience has spoken a different language, and as it cannot be misunderstood, we are left without apology if we disregard her lessons. The strife among some of our schools appears to have been, not which should educate the best qualified physicians, but which should graduate the greatest number ! And to so great extent has this ignoble emulation operated, that a college has been known to admit to degrees, at one commencement, the one-half of its whole amount of pupils ; whereas in all well conducted schools the proportion is never permitted to exceed one *fifth* or one *sixth* part of those matriculated. If it be asked, whether this abuse be not inseparable from the multiplication of medical schools ? I answer no ; with the number of schools it has no necessary connexion : it is only when they are empowered to grant licenses, and when they exercise the power, under a strong temptation to relax discipline, and degrade the measure of requisition, for interest's sake, that the public have serious cause to be alarmed. The evil, however, is within the reach of remedy, and may be corrected, either by changing the mode of compensating professors, in our various schools, so that the profits of teaching shall not exclusively depend on the number of pupils graduated; or by a positive law, which shall separate the license from the degree, and thereby render it simply a professional distinction: the latter is the corrective, most easy, most effectual, and has become essential. As college honours, those degrees when unmerited, could do no harm, further than to degrade the authorities which issue them; but as licenses to practice physic, they are causes of incalculable mischief: deprived of the privileges which the liberality of our law now accords to them, they would of necessity be less numerous, but their value would increase as their numbers diminished; since none but those who aspired to character in their profession would become candidates for a distinction which was purely academic, and conferred no rights, except such as could not fail to render them ridiculous in case their attainments did not warrant the certificate.

I am anxious that these remarks should at least exempt me from the undeserved censure of those who have heretofore thought that college honours should of right take precedence of county or state licenses, and shall therefore, though at the risk of being tedious, offer some of the reasons which may very properly be urged in favour of divesting the diploma of the privileges which the laws of this State, at present, accord to it. I am aware that there are those who will think, I am treading on ground that is hallowed, because enclosed by patents and prescriptions; and that I am trespassing on rights presumed to belong exclusively to colleges: but, convinced that a measure of this kind will elevate the standard both of the degree and the license, I cannot be deterred by any considerations of a personal nature, from performing what, under existing circumstances, is an act of imperative duty.—The degree of Doctor of Medicine is the highest honour known to our schools which is within reach of the student, however great may be his talents or application; it, therefore, claims to be considered as the best evidence of medical acquirement, and the surest passport to public confidence:

but when there is reasonable ground to fear, not only that they will cease to have these attributes, but that they actually serve, by the facilities with which they are clothed, to defeat the plain provisions of the statutes in relation to the right of license; then it becomes as much the duty of the Legislature, as the interest of the colleges to interpose their authority to correct the abuse.

Before the organization of this Society, and for a long time afterwards, the degrees of all medical colleges were simply considered as certificates of high attainment in the various branches of physic and surgery, and conveyed no right to practise those arts with a view to the emoluments of the profession. The graduate, notwithstanding this then flattering testimonial of his merit, was obliged to conform to the law of license to as full extent as if he never possessed it, although it might have been conferred by the most celebrated institution in Europe or America, or exercise the right merely by courtesy; and so indifferent were the first schools which were established in this country on this point, which is now viewed with so much jealousy, that no attempt was made to render the degree a license in law, till the year 1814, and then only in this State, and for the avowed purpose of building up and patronising an institution which had successfully rivalled and has since destroyed an older school established as a faculty in a college of arts.

I feel a confidence in recommending this measure, because I am persuaded that the regents of the university of this State, who alone grant the degrees on the presentation of the colleges, can with difficulty question its propriety, when the evidence on which it rests shall be fairly spread before them; and unless the personal interests of professors are permitted to stifle their higher obligations of duty to the public, they too will be constrained to acquiesce in its reasonableness. The beneficial effects of such a modification of the law, as would recognise this separation, would be immediately obvious from a view of the consequences which must of necessity follow. In the first place, it will restrict all colleges, not only those in this State, but, to a certain degree, those located in other States who educate physicians who may settle in this, within their proper sphere, which legitimately extends no farther than to instruction:—it would destroy the inducements now presented to pupils, to resort to the schools to procure a license rather than an academic honour; and make it necessary that the candidates for these distinctions, should be fully furnished with the preliminary education which is essential to a good physician, and without which he cannot with facility comprehend even the technicalities of the science:—and as the great aim of every well-regulated school would then be, to acquire a reputation from the *quality* rather than from the *numbers* graduated, the diploma would become intrinsically valuable as the evidence of the student's proficiency. The license, stripped of those deceptive facilities which *keeping terms*, as it is called, presents, to tempt young men to shorten the period of their pupilage, contrary to the true intent and meaning of the act, would depend, as it should, more upon the actual duration of his studies than upon the evidence of attendance on lectures which may never have been heard; for it must be observed, that this evidence is neither more nor less than the professor's receipt for his fee, which is always required at the commencement of the course. The examinations, conducted by persons in no manner interested in the profits of teaching, and *only* solicitous that the profession should be honoured and the public served by the admission of the candidate to the privilege of practice, would be rigid, impartial, and satisfactory; and precisely in proportion as it was so, would be the promise of future usefulness. It would be idle to attempt to conceal what is already a matter of notoriety, and therefore I shall offer no apology for stating (and I do it without fear of successful contradiction) that the qualifications for a degree in some colleges of medicine are much less than those which the laws of this State require for license; on which account many are enabled to defeat the wholesome intention of those sections of our acts, prescribing the mode of education for the practice of physic, by possessing themselves of diplomas derived from schools *without* this State, and afterwards placing them on record in the counties where they purpose to reside. This practice has grown into an abuse, which nothing but a repeal of that section of the act which gives to the diploma the rights of license, can effectually correct.

Apart from the pecuniary interest which public instructors may have in this question, which by the way ought never to be consulted when it comes in collision with public duty, there is but one objection which can be urged with any appearance of plausibility against its unconditional repeal, and I have accordingly anticipated it. It will be said, that to those who possess the degree, the right of practice will be accompanied by a mortifying condition, viz.—an additional examination. It is true, an additional examination will be required; but that it would degrade or disgrace any candidates, except such as would deserve such mortification, is an apprehension utterly groundless. Examinations have no terrors for those who are qualified; nothing so completely dissipates those fears, which their formalities are calculated to create, as the consciousness of preparation. Those alone, who are unqualified, need to dread the ordeal which tests their deserts; and perhaps, both the interests of the profession and the colleges themselves would be better served, if less pains were taken to dismiss those wholesome anxieties which stimulate the pupil to his exertion.

The separation of licenses from degrees appears to be the more necessary, since to the inordinate multiplication of them almost all the faults of early medical education are justly chargeable. The facilities with which they are acquired have already sensibly diminished their value as evidences of medical proficiency; and they must continue to have the effect, so long as gentlemen are graduated who are deficient in the rudiments of a good education. The fact, that as many if not more persons are admitted to these honours in one year, in the United States, than are admitted to the degree of Bachelor of Arts in all our colleges during the same period, speaks a language so emphatic, and in a tone of such serious admonition to all medical schools, that it is matter of astonishment that they have not, long since, taken decisive measures to correct the impression which it is calculated to create; for the inferences from it are so obvious, that no argument can illustrate or sophistry obscure them. It is believed, that at least one half of the youth educated in our colleges apply themselves, after graduation, to mercantile and miscellaneous pursuits, and that the remainder is destined to fill the ranks of the three professions. If we allow that each receives an equal proportion, which perhaps is not very wide of the truth, it will follow, that no more than one sixth part of the whole number of graduated physicians have the advantage of a liberal education: and when we take into account the number of persons licensed to practise physic under the laws of the several States, which is presumed to be equal to those who receive the medical diploma, we have the mortifying result, that only one person in twelve of the authorized practitioners is furnished in like manner. A full education, at best, but enables the possessor to add to his stock of information without incurring obligations to teachers, and to this end it is always directed, when professional pursuits are the subjects of study; without it, the pupil must expect, at every step of his probation, to contend with difficulties which will retard his progress, and which, though they may diminish as he advances, will nevertheless always continue to be sources of embarrassment, tending to circumscribe both his usefulness and his reputation.

I know that there are those who, without this education, are fully competent to exercise any professional employment with credit to themselves and advantage to the public: there are those whose capacities for improvement, and whose thirst for information, are such as scorn the trammels of scholastic discipline; who can qualify themselves for any business, without creeping, at a snail's pace as they think, through all the forms of grammar-schools and colleges: these are gifted with powers which with difficulty acknowledge the restraints of instructors; they are nature's true nobility, whose patent heaven has registered upon their foreheads; upon whom genius has impressed her tower-stamp; and they would wear her livery and honour her service, be their avocations what they might: but they are exceptions to all known rules; their number, too, is comparatively small, and if ten times multiplied, our profession would have no exclusive right to claim them as its members.

However much we, as individuals, may regret the injury done to medical degrees by the indiscreet or interested distribution of them, it is only as they affect the character of the license, and as they are calculated to defeat the intentions of the law of the State, that they interest us in our corporate capacity. But while I feel constrained to charge upon them so large a share of the abuse of medical privileges, I should do injustice to my subject were I to permit the evasions of the law in respect to the licenses themselves, as they are occasionally issued by the county societies, to pass unnoticed: those infractions it is true are not numerous, and they appear to have arisen more from the latitude of construction given to its provisions, than from a contempt of its restraints; still, as it is of the first importance that the law should not only be rigidly but impartially executed, they are proper subjects for the cognizance of the Society. At a previous session they claimed your attention, and it is presumed that, as they have lost none of their interest, they will continue to be objects of solicitude till corrected by statute.

It is not a matter of indifference whether or not the physician merits those privileges which the law of license permits him to exercise, because those privileges invest him with the power to do incalculable good or infinite mischief; and whether it shall be the one or the other, must depend entirely on his medical education, while those who must be the subjects of his skill are utterly incompetent to judge of its amount. In all other practical sciences, the intelligence of the community is sufficient to estimate the desert to which every individual is entitled, who makes a claim upon their confidence; the exhibition of their talents is a public exhibition, and the success of their labours is measured without reference to that stupid doctrine of fatality which is prone to confound all distinctions, whether of morals, intellect, or acquirement. In one essential respect our profession differs from every other;

the mistakes of other professional men can be, and almost always are corrected by the superior intelligence of its fellow-members; the evils of mal-practice or ill counsel in matters relating to property, for example, can at most but *delay*, they never can *defeat* the ends of justice, unless moral turpitude comes in aid of ignorance. Not so in the practice of physic: the errors of the physician, in few instances, admit of a complete reparation; in most, they permanently affect the suffering individual. The loss of all active usefulness, remediless disease, or a premature old age, whose duration is only measured by its wretchedness, too often are their sad results; and ignorance, apart from any moral baseness, can destroy both health and life, and, in their wreck, the social happiness of a whole community. There is no court for the correction of errors in the practice of physic, at least none which can afford relief to the unfortunate subject of an ill advised, or perhaps, under the circumstances of the case, a poisonous medicine: the most that may be expected (and this is far too much) is that the victim's misfortune may serve as a lesson to others equally unskilled in their profession, and teach them another truth of which it was always their sin to have been ignorant. There is scarcely any person whose experience is so limited as not to have presented evidence of the truth of the above remark: those who have witnessed the desolation of a wide wasting epidemic—who themselves have tasted all the bitterness of widowed hope—who have been called to inter in rapid succession every staff of their support, whether present or in prospect—and who, but for the anodynes which even protracted sorrow kindly furnishes to the distressed, would have drained the cup of unmingled wretchedness, and found their only refuge in despair, and there are some such—they know the immeasurable difference between a well-instructed physician, and one who merely values his vocation for the profits which it yields. There are times when the intelligence of the best informed is taxed to the utmost limit of its ability to arrest the march of disease, or suggest a remedy which shall avail to ward off the stroke of death; and when they do occur, where shall the half-educated or the imprudent physician be found? "When the files of recorded fact afford no precedent:"—when, if they did, the disastrous issues which await a moment of indecision forbid a reference: when the impending gloom of the grave affrights from their wonted exercise the kindliest affections of the heart, and death, clothed with all the terrors which its realities possess and its fears can borrow, oppresses with heartless despair both the patient and his attendants:—then it is, that the intelligent physician stands, as it were, between the living and the dead, the honoured instrument of blessing, qualified alike to dispel the distracting doubts of friends, and to calm the anxieties of the suffering victim of disease; or, in failure of success, to justify himself before God, his conscience, and the sorrowing family: while the ignorant practitioner, affecting, for the first time, to have been made sensible of his deficiencies, contemplates in stupid amazement, the event which he can neither avert or control, and is *too* happy if peradventure he can solace himself with the reflection, that the distress which he witnesses he had no agency in creating.

But there is one other view in which the subject of education presents, which is peculiarly interesting. Other things being equal, those who are best educated are those who possess the best practical moral: the man of letters, for instance, is rarely found to indulge that mercenary disposition which lies at the foundation of almost all the petty vices which mar the pleasures and interrupt the harmony of social life. The first lesson of avarice is always taught by poverty, or the fear of it, and the second by pride; but its pupils are those who will learn nothing else so readily. The scholar, elevated above the reach of the one by his capacity to render himself useful, and building his hopes of distinction upon the powers of his mind rather than the influence of his wealth, is free to exercise the kindly sympathies of his nature without danger of rebuke from selfishness, although the price he pays for the satisfaction may ill suit his convenience; if peradventure he is in straitened circumstances, his poverty is without meanness; if otherwise, his affluence is without ostentation. It is this generosity of temper, next to an intelligent discharge of duty, which renders the character of a physician estimable; without it he *may* be useful, but with it he *must* be respected; and if the virtues of humanity and charity are so necessary, it is important that his education should be such as will allow the fullest scope for their exercise.

As the improvement of medical science is known to be intimately connected with the happiness of society, and to depend almost exclusively on the measure and quality of education which the pupil receives previous to his admission to practise, it would seem superfluous to indulge in any further remark on this subject; although it must be confessed that the benefits to be derived from any changes in this respect, must of necessity be prospective. There are, however, other circumstances which affect the character of the profession as it now is, which claim your special attention. It has created no little surprise among all classes of intelligent men, that the interests of medicine should have received less protection from the laws than those of any other profession; and it is impossible that the public opinion should be mistaken, so long as the 20th section of the act, regulating the practice of physic and surgery, shall continue to extend immunity to every species of medical imposture. This section professes to be penal, yet the very terms in which it is couched defeat the end designed by its enactment. It provides a penalty for each and every breach of the law of license of which the party may be convicted, but prescribes a mode for its prosecution and recovery which renders the section completely nugatory. It is made the duty of the overseers of the poor to commence the suit, though no penalty attaches in case of their refusal; and their apology is not destitute of support. When required to prosecute, they answer, that it is inexpedient to apply the funds entrusted to them for the support of paupers, to defray the necessary expenses which must accrue whether the prosecution be successful or not; and as the uncertainty of conviction, and the still greater risk of not realizing the penalty, are with them matters of serious consideration, they prefer neglecting their duty to hazarding their trust-funds in attempts to execute the law. This reasoning, however much it may be at variance with the good sense of that part of the public who duly estimate the importance of the medical license, finds an ample support in the first proviso appended to the section : its terms are, "*Provided, that the person so practising without license, who shall not receive any fee or reward for the same, shall be exempt from the penalty of this act.*" This clause, save one to which I shall presently refer, is perhaps, the most extraordinary provision which ever found a place in our statute book; it makes the penalty attach, not to the practice of physic without the evidence of proper qualification, but to the receipt of a fee therefor; it makes no account of the disastrous consequences of unlicensed ignorance, but seriously attacks the petty emoluments of its craft; it, in effect, punishes the *larceny*, while it acquits the *homicide!* The section, without this proviso, can serve no purpose in preventing quackery and imposture from battening on the credulity of the public, from the difficulties attending its execution : and with it, in place of being penal, it operates as a bounty; for he must be stupid indeed who, with its assistance, has not ingenuity sufficient to elude the penalty. If there be any serious intention to protect the public against the impositions so frequently practised by men who assume without warrant the character of physicians, the offence should be made a misdemeanour, to be prosecuted by indictment, and punished at the discretion of the court, within a reasonable limit of severity : nothing less than this offers the slightest encouragement to expect, that the nuisance can ever be effectually corrected.

If the remarks just made are warrantable, in what terms can I speak of the proviso which follows, in order to convey a correct idea of its injurious tendency? "*Provided also, that nothing in this act contained shall be construed to extend to debar* ANY PERSON *from using or applying for the benefit of any sick person any roots, barks, or herbs, the growth or produce of the United States.*" The first only intended to restrain unlicensed practitioners, who professed to be physicians; this patronises every pretender to the healing art, be his merits what they may, provided that he restricts himself in the choice of remedies to those articles which are the growth of this country. The one presumes that "a *little* learning is a dangerous thing," and interdicts its exercise; the other grants a complete immunity to those who have *none at all;* and next to the downright slander, that the science of medicine is merely conjectural, and its practice a game at hazard—that it is an occult art which men in their distresses will consult, but in which none in their senses will confide—this last implies the most opprobrious censure. The notion that the congenital wit of a seventh son eminently qualifies him for the business of a physician, without the labour of thought or study—or that royal fingers, used like Perkins' tractors, are specific in the cure of scrofula—while they are wisdom in comparison, are not half so degrading to the profession. Those were prejudices, nursed by ignorance, in times when common sense was obliged, for conscience' sake, to do homage to the basest superstition; when it was a sin to be wise at all, and an aggravated offence to believe more or less than was set down: this is a serious enactment of an enlightened legislature, made less than thirteen years ago; and, as if to render it a still greater anomaly, it makes part of a law regulating the practice of physic and surgery!

It is not easy to assign a satisfactory reason for its introduction in the original law of 1806, unless, indeed, the difficulty of procuring any act for the regulation of the practice of physic was such, as to render this sacrifice to a most unreasonable prejudice, necessary. If so, though it has served its purpose, it must be confessed, the public have paid at a dear rate for the accommodation. The legislature of this State is, perhaps, as intelligent a body of men as any in this country, but in all large assemblies there will be some whose erratic course of conduct will render it a mooted point, whether prejudice or perverseness; a want of information, or a determination not to be informed, governs their opinions: we know that there are some, whose credulity by a strange fatality, appears to be inversely as the amount of testimony. Whether the influence of such will operate to an extent sufficient to prevent this scandal of the profession from being wiped from the statute book, we cannot say: we can only hope the contrary. It may well be questioned, however, whether the records of legislation can furnish any thing to be compared with this offensive clause; for, view it in whatever light we may, it stands without apology.

To provide for the education of physicians—to settle the terms and courses of study—to endow and patronise schools for their instruction, and at the same time, dispense with all in favour of a set of men whose celebrity is known to be founded upon their avowed contempt of all information, other than that which (if it be to be acquired at all) savage life can best teach,—involves an inconsistency which the utmost ingenuity cannot reconcile. The untutored Indian may possess a knowledge of vegetables, which a habit of close observation may render, to a certain extent, efficient in the treatment of diseases incident to the hunter state, which are few and simple, precisely in proportion to the distance of its removal from a state of civilization; but to expect that the same remedial means will or can be successful in the condition of society in which we are placed, is scarcely less than absurd. If ever there was a law which required to be repealed, as much for the credit of those who enacted it, as for the benefit of those for whom it is presumed it was enacted, this assuredly is of that character; for it cannot be made consistent with itself without assuming as truths what no man of common sense will be willing to allow, viz.—that all these professors of a vegetable materia medica are *seventh sons*, or that the country produces *no poisons!*

It may be expected before closing this address, that I should say something in reference to the medical politics of the College of Physicians and Surgeons in the City of New-York, as I have taken a more than ordinary interest in them for the last six years, but more especially as they are intimately connected with the honour and dignity of the profession in this State. A detailed exhibition of the controversy, which has distracted that school, and which threatens to destroy it if not speedily adjusted, suits neither this place nor this occasion; though it is a subject of regret that it is not better understood:

but as such a sketch of its history as will enable the intelligent inquirer to compass its merits, can conveniently be given, without the necessity of entering into detail, I deem it my duty to present it.

The charter of the College of Physicians and Surgeons was granted by the regents to the physicians of New-York, on the prayer of their petition in March 1807, but it reserved to the grantors the right of altering and amending it in any, and every respect, as they should deem expedient. Before it had been one year in operation, that is, in March 1808, they resumed some of the powers granted, and took upon themselves the appointment of all its officers: during the three succeeding years, they altered and amended, removed and appointed so frequently, and it would appear so unfortunately, that, according to the report of the regents themselves, not less than five different interests were represented at their board, each of which prayed for changes; till, in order to terminate at once "all the feuds existing among the professors," they again amended the charter in 1811, revoked some appointments, made others, and limited the number of trustees to twenty-five, although they did not appoint them until the spring of 1820. In 1812, only one year after this, the regents, by virtue of their reserved right, (which had so often brought them into difficulty by making them the umpires of the conflicting interests of professors, for during all this time and for a long period afterwards we hear nothing of trustees,) abrogated this charter, and gave an entire new one, in which those mischievous words, *we reserve to ourselves*, happily found no place: it was gladly accepted, and the college took a new departure on the tide, not of successful, but of dubious experiment.—During all this time, and since the year 1792, there had been existing another school, established as a faculty of medicine in Columbia College. In 1814 the professors of the two schools united, and the faculty in Columbia College was abolished; whereupon the regents again, but *with consent* of the trustees of the College of Physicians and Surgeons, made another new settlement of professorships. The college from this time to the year 1819 went on without noise or controversy, except such as might have existed within their own doors; for it had become, by the neglect of the regents to fill up the board of trustees to the number of twenty-five, in fact a concern of professors: they were a *majority, a quorum, a board of teachers, and a board of examiners,* with none to control them except the regents, and those removed at 150 miles distance, possessing no means of information but such as they themselves were pleased to furnish: and so it might have continued to this hour, had not the public become dissatisfied with the extravagant fees of tuition, which, in some cases, exceeded the authorized amount, as settled by regents, by sixty per cent.; and had not the profession taken alarm at the inordinate proportion which the number of persons admitted to the degree of Doctor of Medicine, bore to the whole number of pupils belonging to the school, which, at one commencement, was within a fraction of the one half, many of whom had not complied with the requisitions of the laws of this State.

In 1820 the Medical Society of the County of New-York and the Medical Society of the State presented these subjects, which had become matters of notoriety, to the regents as abuses; and the Medical Society of the County particularly, among other things, prayed regents to fill up the board of trustees with medical men resident in the city, in order that, as judges of medical propriety, they might correct what should be found wrong, and be readily convened for that purpose. The regents assented, vacated the seats of the non-resident members, and filled up the board, but permitted the professors to hold their seats as trustees.

Here the concerns of the college begin to assume a serious character. Hitherto their merits were confined, so far forth as regents were informed, to matters of personal interest among the professors; now the *public* had their representatives at the board, and the interests which they represented did not, in all points, accord with the views of professors; whereupon they who had agreed only to differ for the last ten years, now made common cause to resist the claims of the profession upon an institution which was emphatically a public one, and had partaken largely of its bounty. The new trustees, without for-getting the courtesies due to gentlemen, although they were well satisfied that they had done all in their power to prevent their appointment, and particularly the appointment of such of them as were the petitioners for the change, made themselves fully acquainted with the condition of the college, and for a while contented themselves with suggesting improvements in the purest spirit of conciliation, in the hope that they would meet the views of the professors, and render unnecessary a further resort to the regents; and the school was conducted for a year or two in apparent harmony, nothing very material occurring to distract it, except an attempt on the part of professor to dislodge one of their associates, which was successful however, notwithstanding a majority of trustees were opposed.

The immediate causes of the difficulties *now* existing, between the professors and trustees, are, that the latter have withdrawn all their confidence from the former in the examition of candidates for degrees, and that they have been sedulous in their endeavours to improve the college finances. That they are perfectly justified in both these respects, will be manifest from the following facts:—It is necessary to premise, that candidates for the degree of Doctor of Medicine are required to pass several examinations, the first of which is always before and by professors alone, by whom they are recommended as qualified to appear before the board of trustees, whose alone is the right to recommend to regents. In the winter of 1824–25, a suspicion was abroad that the preliminary examinations of professors were not so rigid and impartial as they should be; and as it had been industriously circulated among the students, that these examinations were the most important, and that those before trustees were merely formal; and great pains had been heretofore taken by professors to inculcate this belief, on which account the offices of four of them were filled with those pupils who expected to graduate the ensuing spring—the trustees determined that, as it was by charter made their duty to recommend, they would satisfy themselves of the candidates' acquirements, and that their examinations should no longer be examinations *pro for-*

ma. They were furthermore impelled to this course from the fact having come to their knowledge, that in several instances the law of the State had been grossly violated, and their confidence abused. It perhaps is needless to observe, that the resistance of professors to this measure, so righteous in itself, and now so imperatively demanded by the honour of the college, was ill calculated to produce the conviction that the change was unnecessary. Professors argued, that it was an innovation on established usage, for the examinations before trustees had always been *pro forma* merely. The trustees allowed it was so, and that it might have been proper, for that, under the former arrangement of the board, the examination was, in fact, held before the same men, the professors being the whole of their own board, and a large majority of that which recommended the candidates, and it was this vicious organization of it which induced the regents to change its character. The professors were obliged to submit, but they did it so ungraciously, that the whole school was in rebellion against trustees' authority. In order to prevent a repetition of the same scene, the trustees, by ballot, appointed a committee to draw up a memorial to regents on the condition of the college, and recommend such changes as they thought the honour and usefulness of the school required. It was done—the college convened to discuss said report and memorial—professors staid to hear it read, but in place of attempting reasonably to argue against its adoption, or even to amend it in any one particular, and in failure of success to enter their protest on the minutes to be transmitted to regents along with the memorial; they, as if by consent, all left the board and destroyed the quorum. The report, however, was at a subsequent meeting acted on, amended, and accepted by the trustees, and duly sent to the regents. It contained two essential recommendations, calculated in the opinion of the trustees, if adopted, to heal all differences by removing all causes of disagreement. The one had relation to finance, the other to the power of making their own by-laws. It was shown to regents, in that report, that the college was actually insolvent, if required and obliged immediately to pay its debts, notwithstanding it had received from the State upwards of *sixty-six thousand dollars*: that a large part of its mismanagement was justly chargeable to the professors, who had been for a long time a majority and a quorum of trustees to transact all its business: that they had improvidently expended college funds, and even college credit, when these funds were a *minus quantity:* that while they, as professors, had been receiving from *ten* to *twelve thousand dollars* per winter for their *public* lectures; as trustees of the public bounty, they had permitted it to be exhausted in the payment of interest for moneys anticipated for their accommodation, and in expenses; to neither of which objects had they ever contributed one cent: so that, at last, they had become its creditors to the amount of *twenty-one thousand dollars*, about the just value of all its property. On all which accounts they prayed regents to compensate professors by salary, and take the surplus of tuition moneys to build up the college finances, and enlarge the school. The power of making their own by-laws appeared so reasonable and proper in itself, that it was scarcely urged except as a measure of convenience to regents. In all this not a single remark was allowed a place calculated to impeach the character of the professors as individuals. They however, in a great measure, escaped from the discussion of the questions at issue, by impugning the motives of the trustees, and charging them with hostility; whereupon the regents, in order the better to judge of the merits of the controversy, required both parties to appear before them on 29th March last. The result of this trial is now before the public.

The measures then recommended by a committee of regents, if successfully carried out, would have healed all dissentions, no doubt; but the college would have become, in fact, a private school, and the public finding that they had no interest in it, would have ceased to trouble themselves with its concerns. The measure then in contemplation was to remove all the trustees, except the professors, and fill their places with those who, however else they might be qualified, should be deficient in that especial particular which alone could fit them for the discharge of their duty—*they were not to be physicians.* The doctrine of vested right now interferes, and those who were to be dismissed from their employment loaded with compliment, are still retained from necessity.

The regents now, with a solicitude which in a great degree redeems their indiscretion, send a special committee to New-York, who, after a patient examination of several days, frame an elaborate report, which is now before the public in a pamphlet form. Of the merits of this report it becomes not me at this time to speak; the burden of all its argument is to show, that trustees are *useful* as guardians of the college property, but *useless* as judges of medical acquirement; and whether the medical profession will feel themselves complimented by this decision from such high authority, is very questionable.—The merits of this college controversy, stripped of all personal considerations, resolve themselves into this single question: whether or not the patronage of this State should be knowingly devoted to the interests of a monopoly? The question, though simple as the answer is obvious, has been productive of much embarrassment to the regents, and has made them, against their consent, a third party in the dispute. The principle on which all public bounty should be dispensed, needs no illustration. When the legislature of a State patronise literary and scientific institutions, they, in effect, purpose to render their funds more productive by a transfer of them from one object to another; they never can, without gross neglect in their management, or sheer mistake in the investment, lose their interest in them; the property continues to be theirs, and like all other capitalists they have a right to require that their money should be farmed for their own account, and in no case diverted from its proper uses. It is in evidence, that the State bounty to the college has been mismanaged; and it is just as certain, that all the the evils which now distract the school have grown out of its vicious organization which favoured such mismanagement. The wonder is, that the only remedy which ever promised to be successful in healing the dissentions, is precisely that which the regents *will not* apply, viz.—the separation of the teaching from the governing powers, or the removal of professors from the board of trustees. Here vested rights do not interfere, or if they do, the interest of the Professors would willingly waive them, rather than jeopardise the amounts which they receive for instruction. As the college now is, the professors possess (regents being judges) a monopoly: it remains to be seen whether the public will support it. The only privileged orders which the people of this country will tolerate, are the aristocracies of wealth and intellect—the former from necessity or interest—but the latter only from respect, and it must be a voluntary homage. A literary monopoly, therefore, is an anomaly which no human ingenuity could create, or, if created, no patronage could support; and any attempt to tread down the intellect, or stifle the enterprise of an intelligent community by patent privilege, must prove abortive of necessity.

Sedet, æternumque sedebit, may serve as the motto of a professor's chair in countries where public sentiment is controlled by patent; but we have a *chancery,* in this State, in public opinion, whose decisions are always according to truth—and if its judgment be not as summary as it is righteous, it is because of the delay in furnishing the testimony. To that power, whether they will or not, all must submit, and to it the medical profession cheerfully refer this controversy.

ART. II. *Contributions in Medical Jurisprudence.* No. I. By THEODRIC ROMEYN BECK, M.D. Professor of the Theory and Practice of Physic in the University of the State of New-York, and Lecturer on Medical Jurisprudence.

[Read before the Albany Institute.]

Of Insurance upon Lives.

THE uncertainty of the science of medicine is a subject of ridicule with superficial reasoners, and of deep regret among the enlightened and learned. The causes of it can be far more readily explained, than the means by which it is to be either remedied or avoided. On one point, however, all are agreed—that an approach to stability in principles, and correctness in deductions from them, can alone be expected from a long series of patient, laborious, and philosophical investigations.

I am probably blinded by a partiality for a favourite pursuit, but I cannot avoid, in this place, expressing my conviction, that the study of the science of medical jurisprudence will, in some degree, aid in producing the very desirable effect just alluded to. Although the examinations required in it, must necessarily be detached—arising, as they do, from the occurrence of particular, and often peculiar, cases ; yet they as certainly must be both minute and comprehensive. When "life, property, or reputation are at stake," the medical witness who feels a due sense of his responsibility must needs view the subject, presented before him, in all its bearings, and understand all the *possible* phases under which it may occur. Even if he does not perform his duty, either through inattention or incapacity, subsequent examiners will pursue the inquiry, detect his fallacies or his ignorance, and, in process of time, establish a doctrine, or a principle, in which the wisest of the profession are disposed to unite. It is, in fact, the application of analytical reasoning to the science of medicine, in its best form and under the operation of the most powerful incentives. To those who have looked at the subject, a single allusion will be sufficient to illustrate and support all that I have said. How infinitely better are the *post mortem* signs of pregnancy understood at present, than they were before the trial of Mr. Angus.

I have ventured on these remarks, not so much as an introduction to the subject which I intend noticing in this paper, but rather as preliminary to a series of observations on various points in medical jurisprudence, to be continued in successive numbers of this Journal. We shall often have occasion to stop short at the most interesting parts, from a want of due knowledge, either as to facts or their causes ; but it is hardly possible to make any examination or analysis, without arriving at some useful deduction—and, if we cannot settle the truth, we may, at least, indicate what is erroneous or deficient.

Among the more novel subjects in the science, that of INSURANCE UPON LIVES, is one of the most important. It is comparatively unknown in this country, and indeed has but very lately been broached in professional works. I propose to collect the scattered observations on it, with such cases as have occurred in courts of law.

It must be premised, that I do not intend entering on that part of the system of life insurance which relates to the probable duration of life under ordinary circumstances. This has been made the subject of minute, and probably accurate, calculation, founded on bills of mortality; and the directors of insurance institutions are guided by it in requiring premiums. Its investigation belongs rather to medical police, since the professional points to be considered are the *probable duration of life, and the causes either general or local that influence it.* But the questions, whether there has been concealment either fraudulent or otherwise, of the party's state of health—or whether the premium paid has (also in reference to the party's health) been grossly exorbitant—strictly belong to medical jurisprudence, since the testimony of physicians is almost invariably required to elucidate them.

" An *insurance upon life* is a contract, by which the underwriter for a certain sum, proportioned to the age, health, profession, and other circumstances of that person, whose life is the object of insurance, engages that the person shall not die within the time limited in the policy; or, if he do, that he will pay a sum of money to him in whose favour the policy is granted."* The nature of the agreement is such, that in proportion to the probability of the prolongation of the life, will be the smallness of the premium. *Annuities* are regulated on the same principles, and the only difference is, that here the person deposits the required sum at once, and the company agree to pay a certain *annual* sum during his life.*

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* Park on Insurance, 6th edition, vol. ii. p. 571. For most of my references law authorities I am indebted to Paris' and Fonblanque's Medical Jurisprudence. vol i. p. 381.

On all the points indicated by Mr. Park, such as the age, constitution, and health of the individual insured, the tendency of the trade, occupation, or profession, which he pursues, and his habits as to diet and regimen, it becomes the duty of the medical man to inquire and determine. It is the custom with the insurance offices in Great Britain, and doubtless also in this country, to refer the applicant to some professional man, well acquainted with his constitution and habits, or who, in other words, has been his medical adviser. Facts may be thus elicited, which would render an insurance improper according to their rules, or, at all events, tend to increase the premium. In addition to this, as will be seen by a reference to the advertisements of the companies in question, medical officers are appointed for the special purpose of examination, and the party (if it be practicable) appears before them. The leading object of inquiry necessarily is, whether he labours under any disease, and particularly one which tends to shorten life; whether his habits are temperate or not, and his employment unhealthy or dangerous.†

"With respect to the risk which the underwriter is to run, this is usually inserted in the policy, and he undertakes to answer for all those accidents to which the life of man is exposed, unless the *cestuy que vie* put himself to death, or he die by the hands of justice." Hence these are generally excepted in policies; and it must also be added, that, in certain cases, the premium is special, and subject to particular arrangement, such as exposure to risk by long voyages, or by military service, and residence in unhealthy climates.

Policies on lives are *vitiated by fraud or falsehood as to the health of the insured.* Hence, as I have already remarked, if this be charged, the physician may be called upon to give testimony. The few cases stated in the English law reports, relative to this point, are deserving of particular notice.

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* Smith's Forensic Medicine, 2d edition, p. 516.

† Ibid. p. 517.

It has been decided, that "even when there is an express warranty that the person is in good health, it is sufficient that he is in a reasonable good state of health; for it can never mean that the insured is perfectly free from the seeds of disorder. Nay, even if the person, whose life was insured, laboured under a particular infirmity, if it can be proved by medical men that it did not at all, in their judgment, contribute to his death, the warranty of health has been fully complied with, and the insurer is liable."

"Thus in an action on a policy made on the life of Sir James Ross for one year. from October 1759 to October 1760, *warranted in good health at the time of making the policy;* the fact was, Sir James had received a wound at the battle of La Feldt in the year 1747, in his loins, which had occasioned a partial relaxation or palsy, so that he could not retain his urine or fæces, and which was not mentioned to the insurer. Sir James died of a malignant fever, within the time of the insurance. All the physicians and surgeons, who were examined for the plaintiff, swore, that the wound had no sort of connexion with the fever; and that the want of retention was not a disorder which shortened life, but he might, notwithstanding that, have lived to the common age of man; and the surgeons who opened him said, that his intestines were all sound. There was one physician examined for the defendant, who said, the want of retention was paralytic; but being asked to explain, he said, it was only a local palsy, arising from the wound, but did not affect life; but on the whole, he did not look upon him as a good life."

Lord Mansfield, before whom the case was tried, observed—"The question of fraud cannot exist in this case. When a man makes insurance upon a life generally, without any representation of the state of the life insured, the insurer takes all the risk, unless there was some fraud in the person insuring, either by his suppressing some circumstances, which he knew, or by alleging what was false. But if the person insuring knew no more than the insurer. the latter takes the risk. When an insurance is upon a representative, every material circumstance should be mentioned, such as age, way of life, &c. But where there is a warranty, then nothing need be told; but it must, in general, be proved, if litigated, *that the life was in fact a good one; and so it may be, though he have a particular infirmity.* The only question is, *whether he was in a reasonable good state of health, and such a life as ought to be insured on common terms?* The jury, upon this direction, without going out of court, found a verdict for the plaintiff."*

In a subsequent case, the same rule of decision was recommended and enforced. The material points were: That an insurance had been effected on the life of Sir Simeon Stuart, Bart., from the 1st of April 1779, to the 1st of April 1780. The policy contained a warranty that he was about fifty-seven years of age, and in good health on the 11th of May 1779. He died within the year. The warranty of health was contested; but it appeared in evidence, that although Sir Simeon was troubled with spasms and cramps, from violent fits of the gout, he was in good health when the policy was underwritten, as he had been for a long time before.

Lord Mansfield, in commenting on the testimony, observed—"*Such a warranty can never mean that a man has not the seeds of a disorder.* We are all born with the seeds of mortality in us. A man subject to the gout, is a life capable of being insured, if he has no sickness at the time to make it an unequal contract."† The plaintiff obtained a verdict.

The following case is more recent than either of the above. It was an action brought by the executors of Dr. Watson, deceased, against the *Equitable Insurance Office*, to recover a sum which had been insured on his life. Upon the trial of the cause at the Sittings, in 1813, the office resisted the demand, on the ground that when the policy was effected, the deceased had, in breach of his declaration to the contrary, a disorder tending to shorten life, and that the policy was therefore void. For the plaintiff, it was proved by an eminent physician of Bath, to whom Dr. Watson had applied for advice, that his disorder was an affection of the bowels; that the disease may proceed from either of two causes—the one a defect of some of the internal organs, the other a mere dyspepsia; that the first would tend to shorten life—that the second, though it renders the patient uncomfortable, does not generally, unless it increases to an excessive degree, tend to shorten life; and that the complaint with which Dr. Watson was afflicted, was not the *organic dyspepsia*. Several other medical men stated that they had attended Dr. Watson since the policy had been effected, and that he was then quite free from the disorder. On the other hand, several medical persons stated, as witnesses for the defendants, that they had seen him at the time of his visiting Bath, previously to effecting the insurance, and that they had considered him as a falling man. It was left to the jury to decide whether the patient's complaint was the organic dyspepsia, and if it was not, whether the dyspepsia under which he laboured was, at the time of effecting the policy, of such a degree, that by its excess it tended to shorten life. The jury found that it was neither organic nor excessive, and gave a verdict for the plaintiff.

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* Park on Insurance, vol. ii. p. 583. *Ross* v. *Bradshaw.*

† Park on Insurance, vol. ii. p. 584. *Willis* v. *Poole.* "To avoid these questions, it is the practice of the Insurance Offices specially to name gout, and some other disorders, in the inquiries of the usual medical attendant of the party insuring."—Paris and Fonblanque, vol. i. p. 384.

An application was afterwards made to the Court of Common Pleas to set aside the verdict and have a new trial, on the ground, that since the insured afterwards died of the same disorder which he had before effecting the policy, that circumstance was conclusive proof that he was then afflicted with a disorder tending to shorten life.

Mr. *Justice Chambre* remarked—All disorders have more or less tendency to shorten life, even the most trifling; as for instance, corns may end in a mortification: that is not the meaning of the clause. If *dyspepsia* were a disorder that tended to shorten life within this exception, the lives of half the members of the profession of the law would be uninsurable.

The application was refused.*

One case, illustrative of the species of testimony that will invalidate even the certificate of a medical man, will close my references to the English cases.

A person named Aveson, insured the life of his wife, *then warranted to be in good health*, on the 9th of November, 1802, to be paid the sum of *L.*1500 within three months after her death. She died on the 29th of April, 1803. The payment of the above amount was contested at the Lancaster Assizes, before Baron Graham, on the ground that she was not in good health at the time of making the policy. "On the trial, the surgeon who gave the certificate swore positively to his belief of her good health on the 9th of November, though before he was a stranger to her; and stated that he observed her very minutely on that account, and formed his opinion from an examination of her general appearance, her pulse, complexion, and other circumstances, and principally from the *satisfactory answers she gave to his inquiries*. On the part of the defendants, much evidence was given to show that the plaintiff's wife was in a settled habit of immoderate drinking, so as to have affected her health at the time of the insurance, and rendered her life not insurable. The principal question, however, arose on the evidence of one Susannah Lees, who being an intimate acquaintance of Mrs. Aveson, called accidentally upon her in November 1802, soon after her return from Manchester, where she went to obtain the certificate of her health, on which the policy was afterwards effected, and found her in bed at 11 o'clock in the forenoon. Mrs. Aveson then said she was very poorly; that she had been to Manchester the Tuesday before, and that her husband had been insuring her life; that she was not well when she went. And she spoke in a faint way. It was then objected by the plaintiff's counsel, that what she said was not evidence. But the learned judge admitted the evidence, considering that what the surgeon, called on the part of the plaintiff, had sworn as to the state of health of Mrs. Aveson, was in a great measure founded on her answers to his inquiries, and as in general any opinion of the state of health of a person must partly be formed on the account which such person gives of his complaints. The witness then proceeded to state, that Mrs. Aveson then told her "that she was poorly when she went to Manchester, and not fit to go; that it would be ten days before the policy could be returned, and she was afraid she could not live till it was made, and then her husband could not get the money." The whole case was afterwards left to the jury, whether, from the evidence of Mrs. Aveson's habit of excessive drinking, as proved by the defendants' witnesses, they were satisfied, *that at the time of the insurance the mischief was actually done, and her constitution then radically impaired, so as not to be a good life within the meaning of the warranty;* and the jury being of that opinion, found a verdict for the defendants."

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* 4 Taunton's Reports, 763. *Watson* v. *Mainwairing*.

The plaintiff applied for a rule granting a new trial before the Court of King's Bench, on the ground that the evidence of Mrs. Lees, as to the conversation which Mrs. Aveson held with her, was improperly admitted, being no more than evidence of hearsay of the wife against her husband. But after an elaborate argument, it was unanimously decided by Lord Ellenborough and his associates, that the evidence was admissible, to show her own opinion, who was the best judge of the fact, of the ill state of her health at the time mentioned; and application was accordingly refused.*

I shall conclude this paper with the narrative of a case which some years ago excited great interest in France. It belongs to the second division of our subject, viz. whether the premium paid (for an annuity or insurance) has, in reference to the person's state of health, been grossly exorbitant; modified, however, by the peculiar provisions of the French law.

Article 1974 of the *Civil Code* enacts, that "a contract for an annuity on the life of a person who died the same day on which the contract was signed, is void."

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* East's Reports. vol. vi. p. 188. *Aveson v. Lord Kinniard and others.*

Article 1975 extends the same provision *to the case of a person affected with a disease, of which he died within twenty days after the passing of the contract.* It is to this last that the case is particularly referable.

The Sieur Fried, residing at Strasburg, and aged upwards of sixty, sold on the 11th of March, 1809, a large sum in the funds for the purchase of an annuity on his own life. He was, at the time of the bargain, and had been for ten years, afflicted with hemiplegia, in consequence of an apoplectic seizure, and he died on the second day, after signing the contract, of an attack of apoplexy, excited by an altercation. The question was, whether M. Fried, on the day on which he signed the papers, was or was not already under the influence of the disease to which he fell a victim thirty hours afterwards; or, in other words, whether the ten years' hemiplegia and the apoplexy did not constitute one and the same disease?

The following is an abstract of the testimony presented. A hairdresser deposed that he had dressed M. Fried for upwards of two years, who, during that time, had been repeatedly seized with apoplectic attacks; that Fried had for a long time been paralytic of the right side, and was obliged to write with his left hand. The day after the new year, the deceased suffered a severe attack of apoplexy, and this recurred several times till his death. His strength gradually failed, so that he was unable for some time to go out and pay his usual visits.

Dr. Schweighœuser stated that he had long known Fried, and that the paralysis arose from an attack of apoplexy. He did not, however, attend him professionally until March 1808, when he was called in consequence of an attack of apoplexy. He treated him for ten or fifteen days, and left him as well as he was before his illness. In January 1809, he was called a second time. This yielded readily, and he attributed both to slight indigestion. In March, however, he found, on being summoned, that the attack was more serious; stertorous breathing was present, and death soon followed. On inquiry, he ascertained the immediate cause of this last seizure to have been a violent fit of passion.

Some of M. Fried's servants deposed that his mind was impaired, particularly since January; that he walked and spoke with difficulty; that his hearing was affected; and that the attacks of apoplexy were very frequent, sometimes one every two days.

On the other hand, Lacombe, a notary, stated that early in March he had a conversation with Fried, as to the contract which he was about making, and received his directions thereon; that his mind appeared sound; nor did he seem ill, but walked about and sat down apparently with ease. Other witnesses agreed that his intellect was unimpaired.*

The case was, by order of the court, submitted to the examination of the professors of the faculty of medicine at Strasburg. In two reports made by members of that body, it is unanimously agreed that Fried was affected with the disease of which he died, on the day of signing the contract. The arguments advanced may be stated as follows:

Apoplexy, independent of the symptoms which constitute the attack, has certain precursory symptoms, as well as concomitant and subsequent ones. To the last belong hemiplegia, affected senses, weakness of mind, &c. All, however, are referable to the same cause. Apoplexy may be styled the acute form of the disease, and palsy the chronic; and from the slightest excitement, as passion, for example, the chronic will suddenly become acute. They in fact only differ as to the degree of intensity, and hemiplegia always terminates in a fit of apoplexy. It is also remarked as a sound maxim, that a disease is not removed until the symptoms characterizing it have disappeared; and the professors apply it to the present case, by observing that hemiplegia is one of the principal elements of apoplexy.

M. M. Baumes, Vigarous, and Delpech, professors at Montpellier, and M. M. Chaussier and Desgenettes, professors, and

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* The above case, with every thing relating to it, is taken from a work entitled, "*Rapports et Consultations de Medecine Legale, réceuillés et publiés par J. Ristelhueber, Docteur en Medecine, médecin en chef à l'hôpital civil, et médecin cantonal a Strasbourg, &c. &c.* 8*vo.* *Paris,* 1821."

Marc and Renauldin, physicians, at Paris, to whom the case was also submitted, were of the opposite opinion. Their consultations are given at full length in the work which I have quoted.

The Montpellier professors remark, that apoplexy is a disease which attacks the system suddenly and violently; and as it is very common for one complaint rapidly to change into another of a different nature, so paralysis may supervene on apoplexy, and yet have nothing in common with it, except its being a consequence: that the ten years' hemiplegia had not impaired the powers of M. Fried, since during that period *he married twice, and by the second marriage had a daughter.*

The best authors not only separate these diseases, but regard the latter as remaining after the first has entirely ceased. Paralysis is a consecutive and permanent state; apoplexy, a primitive and temporary one. As to paralysis being an element of apoplexy, this would be to suppose that there could be no apoplexy without paralysis, while the contrary is undoubtedly true; and Lieutaud is quoted expressly in favour of this. And it is also urged, that paralysis arises from many other causes besides apoplexy.

The professors also totally object to the idea of acute and chronic forms of these diseases; and even if allowed, they insist that they must radically differ from each. How ridiculous, say they, would it appear, to assert that Fried laboured under apoplexy for ten years. The pre-disposition to a disease, which has been somewhat insisted on, does not carry with it the idea of its actual presence. Many causes may annihilate the pre-disposition; and even if present, a foreign cause, as in this instance, may be necessary to excite the complaint. The case of a family is supposed, who are pre-disposed to gout, but in whom it does not appear until after the age of fifty. Are they, before that time, to be called gouty?

The precursory symptoms are deemed doubtful, as they often indicate the approach of other diseases; and in the case of M. Fried, the attacks appear to have been slight (except the last), and indeed rather carus than apoplexy. The hemiplegia also appears to have been far from violent, as many of his bodily and intellectual faculties remained perfect. The last attack was not spontaneous, but accidental, and a fit of anger would have produced it, without the presence of paralysis.

The opinion of the Parisian physicians is elaborate and able. They observe that palsy consists in a lesion of the nerves of motion and sensation; apoplexy, in a suspension or abolition of sense. Hence different organs are necessarily affected in each. There is no such disease as chronic apoplexy, since death must follow a prolonged attack; but paralysis may occur in three ways, independent of apoplexy, as from compression, section of nerves, &c.; as an *avant-courier* of apoplexy; and lastly, and most commonly, as a consequence of it. Was it the latter in this case; and if so, is the consequence of a disease the disease itself? The remark, that symptoms must be removed before the complaint can be considered as cured, does not apply here. He had no symptoms of apoplexy; and the different attacks of it, so far from proving a continuity of the same disease, indicate the contrary. Every seizure is an independent affection, arising from a particular organic derangement, and this derangement must recur, in order to produce a second. How then can paralysis be called chronic apoplexy?

The mind of the deceased, from the most intelligent testimony, appears to have been sound. Even those, who question it, rather speak of loss of memory, than of the mere essential functions being impaired.

The professors conclude by giving their opinion—1, that Fried was of sound mind when he made the contract: 2, that he was predisposed to apoplexy at the above period; and 3, that the fatal disease did not exist at the indicated time, but was excited by an occasional cause, operating on the predisposition.

From grave consultations, prepared in the closet and submitted to the legal tribunals of the country, the controversy was transferred to the medical journals. An anonymous critic, in the *Journal General de Medicine de Sedillot*, attacked the opinion of the professors at Paris. He insisted, that there was a fixed apoplectic habit in this patient, evidenced by the repeated attacks of the disease. Dr. Marc replied, and Sedillot rejoined. I do not find much that deserves repetition, except the remarks of the latter, that paralysis is an *epiphænomenon* (a super-added symptom) of apoplexy. The latter is barely cured ; and hence a difference is clearly established, which tends to weaken the arguments before adduced. The effect of a disease requires curative treatment, while the predisposition only calls for preventive. Dr. Sedillot also illustrates this case by a reference to successive attacks of hæmoptysis and to repeated paroxysms of epilepsy, and its resembling complaints. In all these, the complaint is one and the same. He therefore concludes—1, that Fried died of a disease produced by the same cause that excited the first and second attacks : 2, that the fit of anger only acted as a purely accidental excitement on the pre-existent apoplectic habit : 3, that he laboured under this disease when signing the contract.

A few words, from one of the editors of the *Bibliotheque Medicale*, closes the discussion in favour of the distinction between paralysis and apoplexy. In the latter, says he, the number of symptoms is reduced, and their intensity diminished.

Dr. Ristelhueber has collected all these papers in the volume which I have quoted ; and, at the conclusion, reviews the controversy in an able and dispassionate manner. He inclines to the side of the Montpellier and Paris professors, and observes, that if the opposite opinion was true, Fried could not have made a contract during the last ten years of his life. The essential symptoms of apoplexy, he insists, had disappeared—and the individual ceases to be apoplectic, but remains hemiplegic. Even if the idea as to the identity of cause (which he denies) be correct, still it does not always exist—or, at least, is not always active—and it did not show its presence on the day of signing the contract. His conclusions are—1, that Fried died of apoplexy, excited by anger—and thus from a cause different from that which produced the first attack : 2, this fit of anger was an occasional and determining cause, operating on the predisposition to apoplexy, and converting his infirmity into it; and 3, that the disease was not present on the day of signing.*

I am unwilling to protract an essay, already too far extended, and at the same time would gladly avoid the imputation of giving a flippant or cursory opinion in this case; but I must express my decided belief, that the Strasburg professors were right. I will appeal, in confirmation of this, to a work which contains the collected wisdom of ages on these diseases, and refer particularly to the chapter on Hemiplegia in Dr. John Cooke's *Treatise on Nervous Diseases.* No man can, I imagine, arise from its perusal without believing that, in the case before us, the apoplectic attack was a symptom—a consequence of the hemiplegia, unconnected, if you please, with the first attack of apoplexy, but certainly a natural result to be expected and predicted (particularly after the first of January) from the state of the patient.

To return, however, to the subject of insurance. The facts, on which general rules should be founded, are few, and they do not lead to the desired object—or, at least, only partially. More knowledge is required, and it is to be hoped that some of the medical men, who for years have acted as officers in insurance companies, may hereafter favour us with the result of their observations. The following remarks, with which I conclude, would seem to incline otherwise; but I trust the difficulties indicated will, in process of time, be overcome. "A full treatise on the relations of medicine to insurance contracts is still a desideratum in medical jurisprudence, and it is rather singular that the subject has not yet been investigated, considering the vast capital that is invested in insurance companies. Perhaps, however, such an inquiry would not be for the interest of the partners of these companies. It is well known that some of them have been long drawing most enormous profits—a fact that can hardly be reconciled with the flattering professions they hold out to the public. The causes of their success (so far as medical inquiry might enlighten the subject) seem to be, in the *first* place, that the probability of life, was, at the outset, underrated, and that little allowance has been made for its increasing improvement: *secondly*, that while the mortality is taken from the average of all lives, good and bad, a premium is required for all bad lives; many such are refused altogether, and no drawback is allowed upon a vast majority of insurances, in which the life is better than the average; and *thirdly*, that the tendency of many diseases to shorten life has been much overrated. It is this last point, chiefly, which requires to be illustrated by medical investigation; but, we fear, too many difficulties lie in the way, and especially where there is an almost total want of facts on which to found precise enough conclusions."*

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* Orfila, in his *Lecons de Medecine Legale*, 1823, (vol. i. p. 455,) notices this case. He does not give a very decided opinion either way, but speaks highly of the talents of Ristelhueber in the controversy. An *analogous* instance, adduced by Orfila, would, I think, rather weaken than strengthen the arguments of R. It is that of a person seized with hæmoptisis, of which he recovers. Nineteen days thereafter, he has another hæmorrhage and dies. Would this vitiate a contract under the article of the French code? Orfila thinks not. I only say, that if it would not, I cannot imagine a case which would, excluding, of course, acute diseases, and with these, it is evident that fraud would hardly be attempted.

Note.—Since concluding the above paper, I have met with another law report, which may be added to those already quoted, as illustrative of the rules laid down in courts of justice on the various points which constitute a full disclosure of the condition of the individual insured.

It was an action on a policy of insurance, subscribed by the Albion Insurance Company, upon the life of Elizabeth Swayne. Upon the trial of the cause, at the Sarum spring assizes in 1815, before Justice Dampier, one defence was, that there had been a fraud in effecting the policy, by the suppression of a fact which the contract required the assured to disclose. E. Swayne had been for many years resident in a house of her own in the parish of *Fisherton Anger*, but was, in December 1813, a prisoner for debt in the county gaol in *Fisherton An-*

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* Edinburgh Med. and Surg. Journal, vol. xix. p. 615.

ger, and then employed Mather to effect an insurance upon her life with the defendants. One condition of the insurance was, that a declaration should be made of the state of the health of the life insured; and Mather, reciting that he had proposed on the behalf of E. S. of F. A. an insurance on her life, which had been accepted,—the declaration then followed and declared, that E. S. did not exceed the age of sixty-six years, and that she was then resident as above. It was stipulated that the policy should be valid, only if the statement were free from all misrepresentation or reservation. For the purpose of ascertaining the state of her health, Mather, by direction of the defendants, called in a physician, who found the subject in the gaol, which is in a situation perfectly healthy, confined in a large airy room and well calculated to preserve the health of its inhabitants. She was apparently about sixty years of age, a fresh looking healthy hale woman, making allowance for her confinement; "for confinement (says the reporter *very gravely*) makes some difference in the state of health." He certified, that she was in good health, and he would have noticed, in his certificate, the fact of her being in gaol, but he was led to suppose that Mather was an agent of the defendants, as he talked of "*our office*," and therefore thought every thing would be communicated to them. Upon this evidence, Justice Dampier thought, that Mather had, by contrivance, prevented the physician from stating a fact to the defendants which he thought material to the contract, and he therefore stopped the plaintiff's case, and, without hearing the defendant's case, directed a nonsuit.

An application was now made to the Court of Common Pleas for a rule *nisi* to set aside the nonsuit and have a new trial. The Judges, however, observed, that they had examined the documents, and there was nothing express in the terms of the policy which required the imprisonment to be stated—nor was there an omission of the statement of any matter which the office called for; nevertheless, if the imprisonment were a material fact, the keeping it back would be fatal; but it ought to have been submitted to the jury, *whether the omission of the* *fact relied on was or was not a material omission;* and therefore there must be a new trial.*

Albany, March 8, 1825.

Art. III. *Observations on Puerperal Fever; being the substance of an Introductory Lecture delivered at the Western Medical College, Fairfield, (N. Y.) November* 1825. By Westel Willoughby, M.D. Professor of Obstetrics and the Diseases of Women and Children in the University of the State of New-York.

The cause, nature, and treatment of puerperal fever have divided and distracted the opinions of physicians in every age, while the result, as to practice, has been highly injurious. It is a disease which claims great attention from its violence and its unyielding nature; and none, in proportion to the numbers that have sickened, has more completely set at nought the skill of the physician, and lessened the pride of the healing art.

If we consult the various writers on it, from the earliest period down to the present time, we shall find all (with a few modern exceptions) agreeing as to its uncertain nature and its fatality.

Like other destructive fevers, it has proved most fatal in confined situations, such as cities and lying-in hospitals. In the latter, it has not been uncommon, during some seasons, for every parturient woman, seized with the disease, to become its early victim. So emphatically has this been the case in the Hotel Dieu of Paris, and in the lying-in ward of the Royal Infirmary of Edinburgh, that one of the learned professors of the latter city has been induced to declare it incurable.

But we need not go abroad for evidence to prove the fatality of child-bed fever. There is scarcely a physician in our own country, who has practised beyond a few years, that has not witnessed its desolating ravages.

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* *Huguenin* v. *Rayley,* (1815,) Taunton's Reports, 6, 186.

During the autumn of 1789 and the winter of 1790, puerperal fever was epidemic in most, if not all, of the New England states. In many parts of Connecticut and Massachusetts, its severity clothed the inhabitants in the habiliments of mortality.

In Berkshire (Mass.), where I then resided, there was not, I believe, a single well marked case during 1789, that did not destroy the patient; and in 1790, two out of three shared the same fate.

At this afflictive period, I was studying my profession—and never can I forget the distressing and heart-sickening scene. Mourning and lamentation were to be seen and heard in every neighbourhood, while the most desponding melancholy was perceptible in the countenance of every pregnant female.

The wife of my preceptor became the victim of this unsparing disease. Physicians lost all confidence in their remediable means, and considered the fever as necessarily and unavoidably fatal. Had they never been undeceived, this belief might have afforded them some consolation; but at a subsequent period, autopsic examinations and a change of treatment, severally taught them their former mistaken pathology.

I have often witnessed the lacerated feelings of my preceptor, while speaking of his mistaken views of the nature and treatment of this epidemic. I have often heard him declare, that had he attended properly to one effort of nature, to wit, a diarrhœa which very generally came on within forty-eight hours after the commencement of the disease—and encouraged this salutary discharge by the use of cathartics, instead of suspending it by opiates and astringents, he would have saved some of his patients, and especially his own wife.

But the great prostration of strength—the frequency of the pulse—the disturbed respiration—brown tongue—the morbid and highly offensive excretions, and the rapid termination of the fever in death—led the physicians to consider the disease as only a modification of putrid or malignant fever. Under this impression, they were very careful not to add to the debility, or to impair the vital energy of their patients. Laxatives, mild sudorifics, demulcents, anodynes, and antiseptics, constituted their principal remedies.

So impressed were the medical men, of that day, with the belief that the fever was of typhus type, and the patient became the victim of nervous irritation and a putrid diathesis, that they overlooked the most conclusive pathognomonic symptoms of its inflammatory nature—such as tension, great pain and exquisite tenderness of the hypogastric region—symptoms that I have always found present in a greater or less degree. These, when united with the appearance of the pelvic and abdominal viscera on dissection, would seem to be sufficient to carry conviction to the most skeptical, of the phlogistic nature of puerperal fever.

Having seen this fever in its sporadic and epidemic forms, I am compelled to believe, from what I have seen and experienced in my own practice, that the fatality of this complaint is more owing to mistake as to its pathology, than to the incurable nature of the disease. This opinion would border too strongly upon arrogance, were I not abundantly supported therein by the sentiments of the ablest and more experienced physicians of the present day. But in saying this, I would not, by any means, be understood that I consider this fever always to be under the control of medicine; for it is with this, as with every other violent disease; many cases are beyond the reach of art—yet I do believe, that if early and judiciously treated, by far the greater part of women labouring under it would recover.

With these introductory remarks, we will proceed to notice the subject under consideration, and in order to communicate my ideas more understandingly, I will, *first*, notice those changes which take place in the female directly after parturition, and those circumstances which render her system peculiarly liable to febrile excitement; *secondly*, consider those predisposing and exciting causes, which have been supposed to be operative in producing child-bed fever, and also the seat and nature of the disease; *thirdly*, notice the symptoms which characterise this state of fever, and the mode of treatment which has been found most successful; and *lastly*, give a history of some cases, that shall illustrate our views of the fever, and enforce the practice we wish to inculcate.

During the whole period of gestation, the parts contiguous to the uterus suffer more or less from the pressure of that organ, and especially so in the last months; the arterial circulation of the hypogastric region is diminished, while the venous blood from the inferior extremities is retarded in its return. When this pressure is removed, the flow of blood is suddenly increased and freely discharged by the uterine arteries, constituting the lochial discharge.

Within from twelve to thirty-six or forty-eight hours at most the lochial discharge abates, while there is, at the same time, a determination of blood to the mammæ, in order that they may be enabled to perform their nutritious function. We thus find two altered determinations of the blood—the first sudden and rapid—the other slower; and it is this disturbance in the balance of circulation that, in the opinion of some, produces those temporary fevers, denominated ephemeral and milk fevers, to which women are subject after their confinement.

The process of parturition is a natural one; yet every case is attended with some difficulty, referrible to those wise precautions which nature has taken to counteract the evils which result from the erect attitude of the body. There is, therefore, in labour a resistance to be overcome, and a power capable of overcoming that resistance. The resistance will be in proportion to the size of the head of the child, or relative smallness of the pelvis and the rigidity of the soft parts, while the powers employed to overcome the resistance and to force the passage of the child, are the actions of the uterus and abdominal muscles.

In the expulsive efforts of these organs it not unfrequently occurs, that the lower segment of the uterus is protruded into the cavity of the pelvis along with, because covering the head of, the child; and in this way or situation, is squeezed by the head of the child and the sides of the pelvis. Considering these circumstances, and many more that might be mentioned, it will appear evident that many causes of violence or injury to the uterus and the peritoneum covering it, as also to the lower part of the bladder and its peritoneum, will be applied during a natural labour.

Long continued action of the uterus exerted upon the body of the child, can hardly happen without inconvenience, and the violent pressure made upon the soft parts and the impaction of the head, will farther add to the chance of injury. Besides these, improper interference with the progress of labour, and the injudicious and unnecessary use of instruments, have too often added to the danger of the woman subsequent to her delivery.

Thus we see that the parturient female is left in a situation that renders her system more than ordinarily susceptible to the influence of febrile causes. It is an uncommon thing for a woman to die during the time of labour; yet that process, under the most favourable circumstances, occasionally lays the foundation of diseases, which come into action after delivery, endangering and sometimes destroying the life of the woman. If the labour has been preternaturally severe, or is rendered so by unskilful management, the subsequent danger is greatly enhanced; and, therefore, we must not be surprised that so many women become the victims of disease after their confinement.

2. There is scarcely any subject respecting which pathologists have given more discordant opinions, than the one relative to the predisponent and exciting causes of puerperal fever; and this dissonance of sentiment has applied equally to the nature and the treatment of this distressing disease.

Some believe the fever to have a specific origin, and when once produced, to become highly infectious, and, not unfrequently, to be carried by the accoucheur and nurse from one patient to another. Drs. Armstrong, Young, Haighton, Gordon, Good, and some others of less note, support this opinion. Mr. Hey believes, if it be contagious, that it is only so in hospitals or lying-in wards, and observes, that if it be a modification of typhus or gaol fever, he "sees no reason why it should not frequently communicate a putrid fever to persons not in the puerperal state, which I have never known to happen."

Dr. Hulme, in his Treatise on Child-Bed Fever, says, "it is not an infectious disease, any more than the iliac passion or pleurisy, a nephritis or an inflammation in any part of the body." Other experienced physicians agree with Dr. Hulme in opinion, while some writers speak on this point with great doubt.

So far as I have had an opportunity of witnessing the fever, I have never found reason to believe in its infectious nature. The most reasonable conclusion, as to the predisponent cause of it, appears to be, that it depends upon atmospheric influence, whenever it prevails in its epidemic form.

Some certain, yet unknown state of the air, operating on the system of the pregnant female, produces a susceptibility to this peculiar kind of febrile excitement; and during this pre-disposition she passes through her parturition, which produces much corporeal as well as mental agitation, greatly disturbing the circulation, increasing the irritability, and leaving such impressions upon the uterine system and its contiguous parts, as to become the exciting cause of inflammation and its attendant fever.

It is no objection to this hypothesis, that we cannot collect and analyse this atmospheric poison; that it is not tangible, or that it cannot be brought within the focus of vision, or distinguished by its taste or smell. Who can tell why this season should produce cynanche parotidæa rather than the measles, or why the measles should have prevailed last season instead of this? Who can say why the epidemic typhoid pneumonia should have commenced its destroying ravages in 1811 instead of 1810?—why it should be almost exclusively confined to the States of Connecticut and Vermont during the winter of 1811—visit New-York in the winters of 1812 and 13—then pass to the south, and prevail in the middle States in the years 1814-15, and finally terminate its fell career in the south-western and Atlantic States in 1816-17—or why it should be a winter instead of a summer disease? This wide-spreading and desolating epidemic, no one will pretend to deny, owed its origin to atmospheric influence, although we cannot determine its peculiar nature, or its insidious mode of operation.

Mr. John Hunter was of the opinion that the disease proceeded from an injury of the peritoneum, or some irregular action of the uterus. He observes—"Sometimes puerperal fever proceeds from a want of disposition in the womb to recover itself after labour, by which the peritoneum, as a cavity, must necessarily be affected. At other times, from a too sudden emptying of the abdomen, whence the peritoneum cannot always recover itself, so as to be properly adapted to its new condition." When the inflammation commences in any given point of the peritoneum, says Mr. Hunter, it most frequently spreads over all the cavity of the abdomen. An extravasation of fluids takes place in that cavity, mixed with pus. The different viscera adhere by their peritoneal coats. The intestines are distended with air, and the irritation thus induced soon kills the patient.

Neither of these two causes can produce any thing like epidemic puerperal fever—because like causes, under similar circumstances, must produce like effects. In every labour, one of these causes more or less obtains, and the other very frequently; still puerperal fever seldom happens, in proportion to the whole number of labours: and Dr. Good justly observes, that with these local causes there must co-operate a peculiar temperament, or a peculiar condition of the body at the same time, in order to produce this state of fever. The co-operating cause, he conceives, is generally to be traced to some constitution of the atmosphere.

Drs. Darwin and Gordon believe puerperal fever symptomatic, and originating from an erysipelatous inflammation of the uterus, its appendages, and their peritoneal covering; and it is certainly worthy of notice, that in many instances of prevailing child-bed fever, there has been at the same time an erysipelatous diathesis present.

Dr. Clarke, in his Treatise on Puerperal Fever, observes, that erysipelatous inflammations prevailed at the same time. Dr.

Gordon, in his treatise on the child-bed fever of Aberdeen, observes, that "the erysipelas commenced with the puerperal fever; that they kept pace together; both arrived at their acmé together, and they both ceased at the same time." Mr. Hey, in his work on the puerperal fever of Leeds, observes, that "erysipelatous inflammations prevailed during the whole period of the fever; and in many cases, were of a very malignant kind, insomuch that I do not recollect ever to have seen worse cases of erysipelas than at that time."

In 1807, the puerperal fever and erysipelatous inflammations prevailed together in this county, and in those north of it. In 1821–22, and the early part of 1823, the disease prevailed over a large district of country, but there was less of it in this county than in some others adjoining. In the same period of time, I have never known erysipelatous inflammations half so common or obstinate: the phlogistic diathesis was so intense, as to require early and copious blood-letting, and other depleting remedies.

The primary seat of diseased action in this disease, has been much less the subject of dispute than the nature of the disease itself. Post mortem examinations have already presented nearly the same results. Dr. Clarke found a large quantity of serum in the cavity of the abdomen, while the peritoneum covering the uterus and intestines were more or less covered with coagulable lymph, and below this the parts were seen inflamed. Drs. Denman and Kirkland consider puerperal fever as originating most commonly in the uterus. Drs. Hulme and Leake found the omentum and intestines chiefly affected, but especially the former. Dr. Gordon says that the peritoneum and all its productions are equally and indiscriminately affected. In two of his three dissections, not only did the peritoneal covering of the uterus partake of the general inflammation, but its substance was enlarged, and the right ovarium (that in which impregnation had taken place) was found in a state of suppuration. In the third case, the disease had been almost subdued by the evacuations employed, and the appearance of inflammation was consequently slight; but the right ovarium was enlarged, and was approaching to a state of suppuration.

In one of the earliest accounts which we have of an epidemic puerperal fever, the uterus is said to have been affected with inflammation in common with the stomach and intestines, and the ovaria to have frequently suppurated. Mr. Hey says, that in the epidemic puerperal fever of Leeds, the uterus was the seat of disease; that it was enlarged, and showed an exquisite sensibility on pressure even at the very commencement of the disease. Dr. Conquest, a celebrated accoucheur to the London Lying-in Hospital, and one of the latest writers on midwifery, observes, that it is excessively absurd to speak of puerperal fever except as a symptom of local disease; that it is evidently an inflammation of the uterus or peritoneum, and the name should only be used as intending to express the constitutional disturbance produced by such inflammation.

Much more testimony might be adduced in support of this opinion as to the seat and nature of puerperal fever, if it were necessary. I may truly add, that I have never seen a case unaccompanied with local inflammation, and that great soreness and tenderness in the hypogastric region is, in general, among the first symptoms.

3. After thus noticing the cause, seat, and nature of puerperal fever, we are to consider the symptoms and mode of treatment.

Though the puerperal fever has been described under many varieties, yet its leading features must be allowed to have a great similarity in most, if not all, of the descriptions given of it. The disease, as I have seen it in the epidemic form, is strikingly analogous to the same complaint as it prevailed in Aberdeen and Leeds, so admirably described by Dr. Gordon and Mr. Hey in their treatises.

" This fever," says Dr. Gordon, " was not peculiar to any particular constitution or temperament, but promiscuously seized women of all constitutions and temperaments, the strong and the weak, the robust and the delicate, the old and the young, the married and the single: those who had easy, and those who had difficult labours, were all equally and indiscriminately affected."

In Leeds the ſever commenced at first among women in the higher ranks of life, but soon descended from the palace to the cottage, and affected alike all classes of parturient females.

Such has been the case in this country, wherever it has appeared in its prevailing character; no child-bearing female could say that she was safe against its deadly grasp.

The period at which this ſever makes its attack is not uniform: there are well authenticated cases on record, where the fever has commenced before labour, and again, weeks have passed by before the attack. Such cases, however, are out of the ordinary course of the disease. The most usual period of its commencement, so far as I have been acquainted with it, is from forty-eight to seventy-two hours: it has much more frequently taken place within forty-eight hours after the confinement of the woman, than otherwise. Dr. Denman says that the usual period is on the third or fourth day after delivery. At Leeds, the fever generally commenced within forty-eight hours; and this was also the case at Aberdeen. Mr. Hey says, that in one case he thinks the fever made its attack within seven hours after delivery; and in another, it appeared to come on gradually after the confinement, without any marked period of attack.

Having seen and treated the puerperal fever frequently, I shall describe the symptoms as I have formerly noted them down, without any particular reference to authorities.

This disease is usually ushered in with a rigor, or shivering fit; to this succeeds heat, more or less intense, as the cold stage has been of longer or shorter duration. When the heat or fever subsides, a sweating comes on, more or less diffused, and generally profuse, accompanied with severe pain and tenderness in the hypogastric region. The pain is steady, seldom remitting, and always increased by pressure on the abdomen. Sometimes, however, the pain remits, and even intermits. In such cases it returns with increased severity, resembling those severe pains which take place after labour, known by the name of after-pains, and by the incautious have frequently been mistaken for them. So common and severe were these pains in the Leeds epidemic, as to be considered one of its certain diagnostics. In one case of a poor woman, says Mr. Hey, the neighbours were so fully persuaded that a second child was left in the womb, that they came to request my assistance in the delivery.

The pulse, from the commencement, is found greatly accelerated, and sometimes at first is hard and full, but as it increases in frequency, it loses its fulness, but not its tenseness. Within several hours after the attack, the pulse, which at first was 100 or 110, is generally found to have increased to 120 to 140.

Pain of the head, vertigo, and ringing of the ears, are not uncommon attendants on puerperal fever. During the remission of feverish heat, the countenance is pallid, and expressive of great anxiety. The surface, for the most part, is hot and dry; but occasionally a profuse perspiration breaks out, which is most generally confined to the head and chest, but sometimes is diffused over the whole surface. When this is the case, the skin becomes cool and pale. The tongue, at first, is white and moist, somewhat furred, and occasionally there is a dry list along the middle. We would not, however, suspect the intensity of the disease from the appearance of the tongue.

If the puerperal fever makes its attack before the secretion of milk, that function does not take place; and if the secretion has been established, the milk soon disappears, and the breasts become flaccid. The lochial discharge in general is much diminished, and very frequently suppressed altogether, but in some instances it continues more or less during the complaint. In bad cases, the stomach is soon drawn into consent, and nausea and vomiting are among the first symptoms; but more commonly they intervene, at an advanced state of the disease. The bowels at first are generally confined, requiring large doses of purgatives to free them; but the sooner these are given after the attack, the more readily do they operate. Before the termination of the disease, a spontaneous diarrhœa almost invariably ensues, sometimes accompanied with tenesmus, and the stools are dark-coloured and highly offensive.

The thirst is more or less intense, the patient frequently calling for cold water, or sub-acid drinks. The excretions are all of them diminished; the urine is small in quantity, turbid, high-coloured, and frequently voided with pain. The sensorium at first is little affected, the intellectual faculties remaining good, until near the fatal termination. In a few cases which I saw in 1807, there was slight coma, and temporary wanderings of the mind; but whenever the patient was roused, she would answer distinctly any question put to her. The blood, when drawn within twenty-four or thirty-six hours after the attack, has invariably given evidence of the inflammatory nature of the disease. Its surface has been covered with a thick coat of a coagulable lymph, while the crassamentum was remarkably firm.

The symptoms, as I have mentioned them, have been very uniform in their appearance, during the earlier period of puerperal fever, as I witnessed it in the autumn and winter of 1807, 1811, and 1812, and so far as my recollection serves me, of 1790 and 1791, but of the last years I have no memorandum.

Although circumstances produced variation in the symptoms, yet the fulness, tension, great soreness of the hypogastric region, and increased frequency of the pulse, were never absent, even at the commencement of the complaint.* In those cases, which I examined *per vaginam*, I found the uterus did not contract and subside into the pelvic cavity, as is usually the case after delivery, but remained higher up in the hypogastrium, forming a distinct tumour over the pubis. It was remarkably sensible, and on pressure the most exquisite pain was felt.

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* "To the younger part of the profession," says Dr. Campbell, "I would offer a diagnosis, for this disease, which for simplicity they cannot mistake, and for accuracy will stand the test of experience, by which alone we should be guided.

"When a practitioner, therefore, meets with a puerperal patient, labouring under acute fixed pain in the lower parts of the abdomen, aggravated on pressure; or a general soreness of the abdomen rendered more acute by pressure, accompanied with frequent pulse, hurried respiration, and much uneasiness on turning to either side in bed, he may rest assured that such a patient is affected with puerperal fever."

If the disease was neglected, or improperly managed, or not relieved within ten or twelve hours, the swelling was no longer confined to the hypogastric region, but extended itself over the whole abdomen, greatly increasing its volume, while the enlarged uterus became hidden in the general tumefaction. This soreness and swelling of the abdomen produced much difficulty in respiration, and obliged the patient to lie constantly on her back. If she is not immediately relieved, the disease pushes on rapidly to a fatal termination. The pulse becomes much more frequent, and sometimes too rapid to be distinctly counted—the tongue is dry and brown, and the teeth and gums are covered with sordes—the cheeks become flushed with a livid hue—the countenance wild and expressive of agonizing distress, and the whole body is covered with a clammy sweat. The pain and soreness of the abdomen at this period greatly subsides, and the patient only complains (if she complains at all) of pains in her sides, back, and chest, which originate from the distention of the abdomen. Spasms occasionally supervene, with a kind of suffocated respiration; the patient becomes very restless; vomiting and diarrhœa ensue, and large quantities of a dark viscid and highly offensive matter is thrown from the stomach and bowels.

At this period the patient becomes comatose—is occasionally more or less delirious—the sweats are profuse: hiccups, involuntary stools, and cold extremities, are the usual harbingers of dissolution, and the melancholy scene is generally closed within a few days from the commencement of the disease.

Considering this disease as I now do, and always have done, to be an inflammation of the uterus, or its peritoneal covering, or both, and the fever altogether symptomatic, the treatment, which I have adopted and still pursue, will be easily anticipated. With the lancet and purgatives I have been able to combat it with more than ordinary success: without them, as I have seen the disease, I should not expect to cure a single patient. Those who consider the disease primarily typhus, have never tried early and judicious depletion; and those who have believed the complaint to be inflammatory at first, but rapidly running into typhus, have restricted themselves so much in their debilitating means, as to render their practice of little worth.

I do not make these assertions hastily or without due consideration, but as the result of my sincere belief after close investigation; and to show that this opinion is not made up without evidence, I will quote a few lines from one of the many who believes that puerperal fever is always a form of typhus. Mr. Walsh, in describing the symptoms of this fever, observes—"The pain, after a few hours continuance, became so severe, that the generality of the patients lay on the back and could not bear the weight of even the sheets; and in one woman, who was attacked soon after delivery, the pain was such as to deprive her of the power of distinct articulation, so that she lay uttering a hideous uninterrupted cry, but totally incapable of answering any question."

Notwithstanding these conclusive diagnostic signs of inflammation, yet this author, and others like him, forbid the use of the lancet, fearing (as they say) the typhoid nature of the disease. While humanity weeps over such mistaken pathology, we should be thankful to heaven, that a more propitious day dawns upon the science of medicine; and that an Armstrong, and other enlightened pathologists, have unveiled the mystery that obscured the nature of typhoid diseases, and exposed the destructive effects of stimulating remedies when injudiciously administered.

Having mentioned the lancet and purgatives as the sheet-anchor of hope in this fever, it will be unnecessary for me, in this place, to notice the auxiliary remedies, as they will appear in the cases which I shall shortly detail. I will, therefore, first notice the practice that has been found successful in the hands of the latest and best writers.

"The method which I found most successful (says Dr. Gordon) was copious bleeding soon after the attack of the disease. But this did not answer the end, unless it was performed early and in large quantities. When I took away only ten or twelve ounces of blood from my patient, she always died; but when I had courage to take away twenty or twenty-four ounces at one bleeding, in the beginning of the disease, or within six or eight hours thereafter, the patient never failed to recover. After bleeding it was my practice to give some active purgative, on purpose to bring on a diarrhœa, which, when excited, I found necessary to continue through the whole course of the disease, till it was entirely conquered; and it is a matter of the utmost moment to prescribe such purgatives as will operate with all possible speed." "I found," says Dr. G. "that most dependence was to be put in calomel and jalap—three grains of the former, and two scruples of the latter, were mixed with the conserve of roses and made into a bolus, which I always administered immediately after bleeding. After this, a purging mixture was given, in such proportions as to produce five or six motions every day, without intermission for the first three days of the disease; after which I diminished the dose, but still continued the medicine till the disease totally ceased." Dr. G. gave his purging bolus as a preventive to the disease the day after delivery, and observes, "that all to whom it was given escaped the fever, except one."

Under this bold and energetic plan of treatment, Dr. Gordon saved all his patients; whereas, under a less efficient one, he lost them all, and that too during the same season and the same epidemic.

It seems that Dr. Denman became a convert to the liberal use of the lancet, in his more advanced years; and the earlier and later sentiments of this distinguished physician are worthy of particular regard.

In his earlier treatise on puerperal fever he observes, "After the most careful observation, the event has so often proved to me that large bleedings weaken the sick, without proportionably lessening the disease, that I have, for a long time, never taken away blood in any quantity. I had," he continues, "very early my doubts regarding the propriety of bleeding in general, in this disease, and am still of opinion, that it is not the most natural, safe, or effectual remedy in this fever." Subsequent experience, however, taught him his mistake, and in the character of a noble and independent mind, he not only relinquished an error, but publishes his confession of it for the benefit of mankind. He observes, in his latest essays on puerperal fever, "I am now convinced by manifold experience, that my reasoning was fallacious and my fears groundless, and that what I had considered as proofs of the insufficiency or impropriety of bleeding in the inflammatory puerperal fever, ought, in reality, to have been attributed to the neglect of performing it in an effectual manner, in the very beginning of the disease."

Dr. Armstrong differs very little in his views of puerperal fever from those of Dr. Gordon. He considers it in the first stage as violently inflammatory, and meets it at the threshold with the lancet and purgatives. He uses calomel much more freely than Dr. G. with a view to its alterative as well as purgative effect. This distinguished physician has thrown more light on the nature and treatment of these fevers, usually denominated typhus, than any writer I have ever read. His treatise should hold a conspicuous place in every medical library.

Dr. Conquest in his late work, when speaking of the treatment of puerperal fever, observes, that every means, that is calculated to diminish the energy of the arterial circulation, should be used without delay. Bleeding, local and general, must be our sheet-anchor, and the quantity to be withdrawn should be regulated exclusively by the activity of the symptoms. This important remedy, continues he, is not adequately appreciated, because it is not usually employed so *liberally* and *early* as it should be. In but few cases will it be prudent to take away less than thirty ounces, and this quantity should be drawn within the first twelve hours of the complaint, or it will rarely subdue this formidable inflammation. The exclusive object of a judicious practitioner will be to allow the blood to flow quickly from a large orifice, until temporary collapse of the system is manifested by fainting, and he will not be influenced by that *simulated debility*, which is the consequence of oppression, and which so often misleads the unwary. In addition to the opening of a vein in the arm, blood may be withdrawn from the loins by cupping-glasses, and from the uterine region by leeches.

Purges, says Dr. Conquest, are next in importance; not mild, but a full dose of the submuriate of mercury and jalap is preferable, and the operation of these may be assisted by purgative and emollient glysters, the best of which are made by a combination of about an ounce of soft soap with a pint of gruel.

These are the directions of the present teacher of midwifery at, and physician accoucheur to the City of London Lying-in Hospital, for the treatment of puerperal fever. This practice, a few years ago, would have been considered by most physicians as little, if any, short of madness, yet it is the only one that has ever been crowned with success.

Before I close my observations upon this important subject, permit me to add the authority of two other distinguished modern practitioners, relative to the propriety of the treatment which I have recommended.

Dr. Good observes that, in the treatment of this disease, the inflammation must be subdued, and that speedily, or the patient will perish, and hence abstraction of blood and calomel purgatives are the arms on which we have chiefly, if not solely, to depend, and both must be employed decidedly and to as great an extent as we dare venture.

Mr. Hey in his most excellent treatise on the child-bed fever of Leeds, which commenced in the autumn of 1809 and prevailed in 1810 and 1814, acknowledges that he was led into a most fatal mistake as to the nature and treatment of this disease, from which he did not recover until he had lost twelve out of fourteen of the first patients he was called upon to treat: that he was led to believe it, from the opinions of reputable writers, as well as from the rapid course and fatal termination of the disease, to be typhoid in its nature, and only to be managed by aperients, mild cathartics, anti-emetics, anodynes, and antiseptics He had, however, closely watched the operation of his medicines, and had observed, that in proportion to the dejections from the stomach and bowels of his patients, were they relieved and life protracted.

From this circumstance he was induced to change his practice, and give the purgative plan a fair trial; and while executing this, he received Dr. Gordon's treatise on the puerperal fever of Aberdeen. This induced him, at once, to yield his scruples relative to the impropriety of blood-letting, and the early abstraction of large quantities of blood was now united to his purgative treatment, with the most consoling and happy effect.

Under this practice, thirty-four out of thirty-six recovered; and of this number, says Mr. Hey, the last thirty afforded no instance of failure in the treatment.* At the close of his treatise he observes, "I have employed blood-letting in this disease to a greater extent than any practitioner, with whose writings I am acquainted, and have hazarded the opinion, that the quantity of blood is scarcely to be limited, but by the removal or considerable diminution of the pain; but let it be remembered, as a necessary appendage to this opinion, that the period for bleeding is confined to an *early*, though not a very definite, stage of the disease."

4. The fatal effects of the stimulating plan of treatment adopted in 1789, and the partial good effect of the purgative one which was followed by my instructor in 1790, had made too strong an impression on my mind to be effaced; so that the first cases of puerperal fever which I was called upon to visit, were treated as inflammatory, and with success. But these were sporadic cases, and more easily managed than when the disease appears in its epidemic form. It was not until the winter of 1806 and the summer and autumn of 1807, that I had an opportunity of again seeing this disease in its prevailing character; and it was at this and subsequent periods, that I noted down the symptoms and progress of the disease.

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* The lecturer, in this place, quoted two cases from Mr. Hey's work, illustrative of the modes of treatment pursued by him at different periods of his practice. As his treatise has been republished in this country, and the cases are of considerable length, it is not thought necessary to quote them in full. They were cases 6 and 14.

I do not, at this time, recollect the extent of the epidemic, neither can I find among my memoranda, made in those years, any evidence that will enable me to state it—yet I well remember, that it prevailed more or less in the northern part of this county, the eastern and northern section of Oneida county, and that district of the Black river country which now composes the counties of Lewis and Jefferson.

It had proved fatal in several instances before I had an opportunity of witnessing a case.

On the 6th of February, 1806, I was requested to visit Mrs. B. labouring under puerperal fever. She was attended by Dr. C. a worthy and respectable physician, and from him I learnt, that she had been confined on the first instant—that her labour had been strictly natural and more than ordinarily favourable—that she continued comfortable until the third day from her confinement—that milk had been secreted, and that while in the act of nursing her child, she was seized with a shivering fit, which, by the nurse's calculation, continued nearly one hour. Warm teas and hot *sling* were given and persevered in, with a view of sweating away a supposed cold. As the patient experienced no relief, Dr. C. was sent for. He saw her twelve hours after the attack. The pulse was 120—the countenance pallid and anxious—the thirst considerable—the tongue white, but not much furred—the bowels costive—urine high-coloured and small in quantity. The hypogastric region was tense and quite sore upon pressure—the lochial discharge small and fœtid—the secretion of milk much diminished—the patient very restless and her strength exhausted. The pallid countenance, quick and small pulse, and great prostration of strength, forbade the use of the lancet, in the opinion of Dr. C. ʒij. of sulph. sodæ were dissolved in ℥iv of warm water, and one ounce of this was given every two hours, till the bowels were sufficiently opened; after which an anodyne draught was to be given, and the bowels were to be fomented with warm vinegar and water.

4th. Dr. C. saw the patient early in the morning—her symptoms had not improved—the salts had procured but one stool—pulse 130—thirst great—tongue dry—abdomen tumid and very painful. There was sickness at the stomach, and the patient had vomited during the night. He took ten or twelve ounces of blood from the arm, ordered a table spoonful of castor oil every two hours until stools were produced; after which twenty-five or thirty drops of laudanum were to be given. A large epispastic was applied to the abdomen, and cremor tartaris was given to abate the thirst.

5th. The patient had a restless and bad night—the oil had operated twice, and thrown from the bowels much indurated and feculent matter—the laudanum procured very little rest—the pulse was more rapid—the tongue dry and brown—the abdomen more swoln—the stomach very irritable, and there was considerable pain in the head. The blister drew well, and gave some relief from the abdominal pain. Opium and camphor were now given to ease pain and quiet the stomach, and sinapisms were applied to the feet.

Dr. C. wished counsel, and I was sent for. On the morning of the 6th of February, and the 4th of the disease, I met Dr. C. and received from him the history of the case as thus far stated.

This morning the patient was evidently beyond the reach of medicine. The abdominal swelling was very great, although the soreness had much abated. She complained of sharp pains in her sides—her breathing was quick and laboured—pulse between 130 and 140—tongue brown and dry—teeth covered with sordes, and every thing was thrown from the stomach as soon as taken. Her arms were constantly in motion, throwing the bed-clothes in different directions, while her countenance was expressive of the most extreme distress. A diarrhœa had supervened, and the stools were dark and highly offensive.

With these symptoms, the prognosis could not be mistaken, and Dr. C. was sensible of the approaching event, having lost several patients within a very short period with the disease.

The effervescing draught was freely given. Pills, composed of calom. 2 grs. and opium 5 grs. were directed—one to be taken every two hours; while enemas were used to wash out the bowels. Barley water and weak chicken broth were advised for her diet, and she was ordered the free use of subacid drinks.

I did not see this patient again, but learned from Dr. C. that the sickness and diarrhœa continued. Coma and singultus supervened, and she died on the 8th.

Several other women died about this time, under similar circumstances, and under nearly a like treatment. Mrs. J. was seized with the fever forty-eight hours after her confinement. She was attended by Dr. F. I saw her on the fourth day after the attack, and she died on the fifth. Mrs. S. of the same town, was attacked on the third day after her delivery. She was attended by Dr. S. I saw her on the fifth day of her illness, and she died on the sixth. In neither of these, had there been any thing like seasonable depletion. Except aperients and one small bleeding in the latter case, exciting remedies were used. In each case, when I saw it, the abdomen was as large as before delivery. Mrs. J. had a constant nausea and frequent vomiting of a dark tenacious fluid. She was greatly distressed, sensible of her situation, and very anxious to be cured. Mrs. S. was comatose, nearly insensible, and totally indifferent to every thing around her. Her stools very involuntary, frequent, dark coloured, and very offensive. The surface was covered with a clammy sweat, and she occasionally hiccupped.

In concluding my observations, I propose to give the narrative of a case, as illustrative of the practice pursued by me at that time, as well as subsequently, with but little variation.

When I visited Mrs. B. on the 6th of February, in consultation with Dr. C. I was also requested to see Mrs. T. residing in the same neighbourhood. She was very near the period of her gestation, and greatly alarmed for her future safety. She knew the situation of her neighbourhood, and the tongue of the busy-body had made her acquainted with the fatality of the disease abroad. She was then pregnant of her third child, in the prime of life, of the nervous rather than the sanguineous temperament.

I endeavoured to cheer her drooping heart and remove her despondency, by giving her the most positive assurance that her complaint was under the control of remediable means, and even might be prevented, by proper treatment. She wished to place herself under my care, and begged I would attend her in her approaching labour. As a preventive, some blood was drawn, a laxative given, and light diet directed. She was confined on the 12th. Her labour was somewhat lingering, but in all respects natural. I left her, two hours after delivery, with some after-pains, but with every prospect of doing well. The death of her neighbour had distressed her much, yet she was flattered by my encouragement, to believe that she would escape the fever. Before I left her, I directed her diet to be light, and every thing of a stimulant nature to be avoided. The bowels were to be opened on the next morning with sulph. magnes., and in case of a chill, it was to be removed by warm diluents, and the application of heat to the surface and extremities. I also desired that the earliest notice should be given me of any change. Mrs. T. remained comfortable until the third evening after her confinement; the lochial discharge had been regular, the secretion of milk had taken place, and her bowels had been moved by the saline purge. Yet, under all these favourable circumstances, about 2 o'clock A. M. of the 15th, and about fifty-four hours after her labour, she was awakened from her sleep with pain in the hypogastrium, and extending to the right groin in the direction of the round ligament. The pain intermitted, resembling severe after-pains; and this did not continue long before a shivering fit ensued. Warm teas and warm flannels were resorted to, as had been directed, and I was immediately sent for. I saw the patient at 6 o'clock A. M., four hours from the attack. There was at this time, febrile heat and tenderness of the abdomen; the uterus had not subsided into the pelvic cavity, but was distinctly felt above the pubis, and was tender to the touch. The lochia had nearly disappeared: the pain was constant, but not so severe as at the commencement. The pulse was 112; the artery small, but tense and vibrating; the tongue white and moist: thirst had been urgent, but was somewhat abated: there was nausea, and disposition to vomit. She was restless, and despair hung heavily on her countenance. Sixteen ounces of blood was taken from the arm, and immediately on its cooling, was covered with a white buff. The pulse fell to 100; was fuller, and less vibrating. Five grains of ipecac. and three grains of tart. emet. were now given in some warm water, with a view to produce full vomiting. It had the desired effect. Much mucus and some bile were thrown from the stomach, and the febrile heat subsided: the patient became quiet, and the surface somewhat moist. A tea was made of senna, manna, and aniseed, each ʒij.: to half a pint of this decoction was added ℥iſs. sulph. magnes. Ten grains of calomel were given to the patient, and two tablespoonsful of the cathartic mixture was to be given within one hour after the calomel, and repeated once an hour, until several stools had been procured. Water-gruel was to be her diet. Spts. nit. dulc. and cold water were allowed freely when her thirst demanded it.

4 P. M. The calomel and cathartic mixture had operated freely, yet the pain and tension of the abdomen was very little abated; the lochia had disappeared; the secretion of milk was stopped, and the breasts became flaccid: pulse 120; tongue white and moist; considerable pain in the head. I bound up the arm, and took from the orifice which was opened in the morning sixteen ounces of blood, which produced some faintness, and an immediate abatement of pain. Pulse down to 110. After the effect of the bleeding was a little over, the cathartic mixture was to be continued, so as to procure two or three stools during the night. One part of antimonial wine was mixed with two parts of spts. nitr. dulc., and two teaspoonsful ordered to be taken every hour in cold water, unless it produced too much nausea.

16th, 7 A. M. The patient had slept considerably during the night. Soreness and pain were much abated. The bowels had been fully opened. Pulse at 100. Surface open, and skin quite moist. The lochial discharge had returned. Gave a small dose of Dover's powder, and allowed some weak chicken broth: the antimonial mixture to be continued in case of fever.

5 P. M. Patient had some refreshing sleep after taking the anodyne powder, but was now restless. Pulse 110. Some soreness and pain in the hypogastric region. Ordered flannels, wrung out of warm vinegar and water, to be applied to the seat of the pain. Gave ten grains of calomel, and directed a tablespoonful of castor oil to be taken in one hour, and repeated once in two hours, until stools were procured. Antimonial mixture to be continued in case of fever.

17th, 8 A. M. Calomel and oil had operated well; patient greatly relieved; soreness of the abdomen nearly gone. Pulse at 90. Lochial discharge increased; some milk in the breasts. The bowels were kept open by the use of the cathartic mixture for a few days, and the patient's recovery was speedy and complete.

I know of no death in 1806 and 1807, in consequence of puerperal fever, where the depleting plan was early commenced and energetically pursued, until every vestige of peritoneal inflammation had disappeared.

In 1811 and in 1822, in my ride, and that of my friend Dr. Sherwood, a similar treatment was equally successful. In 1811, in this town (Fairfield), in one case where I was consulted, the patient lost sixty ounces of blood in thirty-six hours after the attack of the fever, and the bowels were thoroughly purged at the same time with calomel and jalap. This case at the onset was most unpromising, yet the woman recovered.

I have been greatly obliged by communications from various parts of the country on the subject of child-bed fever. There is a remarkable agreement in these communications, as it respects the diagnostic signs of the disease. Chills, succeeded by heat, soreness, pain and tension of the hypogastric region, with an excited circulation, are mentioned by all as ushering in the disease. All agree as to its fatal tendency, and none of them speak of curing the disease otherwise than by an early, prompt, and persevering system of depletion. If this plan did not cure, it still never failed of giving relief, and of prolonging life. The great misfortune in the treatment appears, from the communications I have received, to have resulted from the neglect of not calling the physician in season. In some of the cases, from twelve to forty-eight hours had elapsed before the physician was consulted ; and during this time the most injudicious, and frequently destructive, means have been used by the nurse to remove a supposed cold. Under these circumstances, no mode of treatment can be expected to prove successful. Where there is this neglect, or an inefficient treatment, fatal organic changes soon take place, which put the patient beyond the reach of remedies.

It is worthy of remark, that in two cases, communicated to me by my worthy friend Dr. Miller of Johnstown, where an incessant vomiting ensued, and could not be checked by any usual remedy, it yielded immediately to the moderate use of the ol. terebinth. This seemed to give much temporary relief, operating as a diuretic and cathartic ; yet the patients did not recover.

There appears of late to be much testimony in support of ol. terebinth in puerperal fever. I have not used it myself, but should do it, in case of the failure of other remedies as recommended. As to local applications in this disease, a variety of them have been recommended. I have tried warm fomentations, cold applications, blisters, and local bleeding, and have found all, at times, serviceable ; but they are of secondary consideration, and would be of little worth, without the general remedies already advised. Where there is much heat of the surface, united with great tenderness of the hypogastric region, cold applications have given much relief : on the contrary, if there is much pain and tension, with diminished heat, warm applications do the best. Blisters, in my opinion, should not be employed until the intensity of the disease has been very considerably overcome by depleting remedies, or until it appears in its sub-acute form. Topical bleeding is of much utility when the general bleeding has been a little too deficient, or in those delicate subjects that bear general bleeding badly.

The solicitude and care of the physician should be always actually engaged for the welfare of his patients. He should not be satisfied with treating their diseases after they have occurred, but he should, as much as in him lies, point out their causes, so that they may be avoided. Whenever the puerperal fever prevails, it becomes his imperious duty to visit those females whose term of gestation is nearly completed, and who depend on his assistance in the hour of parturition. He should remove their despondency, sustain their hope—point out to them the necessity of avoiding every thing that is calculated to disturb or irritate the system. The importance of a mild diet—the necessity of aperients—if there be plethora, the abstraction of blood,—are all to be enforced. In the hour of parturition, he should see that there is no improper interference with the process of labour. After the confinement of the woman, he should see that she is placed in a favourable situation, away from noise, and in a room sufficiently ventilated. He should give particular directions relative to her food and drink, and see that the most important excreting functions are duly and properly performed. He should make it his duty, if possible, to see the woman for several days after her confinement, and superintend in some measure her nursing ; and should any symptoms supervene unfriendly to health, impress upon the nurse the necessity of sending for him without the least delay. This attention, if it should not prevent the fever, will at least lessen the danger, and make it more manageable.

This solicitude and kind care will greatly endear the physician to his patients. He will receive their thanks—become the object of their gratitude ; while, at the same time, he will have the consoling reflection of having performed an important duty, and of saving the lives of some invaluable mothers.

Art. IV. *An Account of the Sources of Animal Heat.* By Felix Pascalis, M.D. President of the Academy of Medicine of New-York.

"The animal heat, for aught proved by experiments, may depend on a cause totally different from either vessels, lungs, or nerves."

"Fresh be the laurels of the Caverhills and Crawfords, Berards and Brodies! But plain truth must confess in her simplicity, that we should have known quite as much of animal heat without their interference. It is still a problem, to the solution of which experiment will go much farther than the best hypothesis."—(Vide *Note, p.* 403, *Comp. Physiol. by Magendie.*)

With these, and similar other remarks, the translator, Dr. Milligan, introduces the special article on animal heat, of that work. It is somewhat singular that he should profess more scepticism, doubt, and caution than the author, who never held up any point of doctrine on animal life, except it was proved by his own experiments, or by such as he had examined and approved. This sweeping note was the less called for, inasmuch as he having adverted to *causes of animal heat* different *from either lungs, &c.* "he would not give up," he said, "the fine series of analogies which connected heat and respiration over the whole animal world." There must be several words too many in this *eloquent* note; or else the translator is one of those who need to consider again those analogies which connect heat and respiration.

It is the object of the writer in the following paper to illustrate these analogies—1st, from the general laws of the atmosphere; 2dly, from the distribution of atmospheric elements in the lungs; and, 3dly, from the various uses of oxygen in the human system. He would hardly undertake to treat at length on such important subjects; he intrudes only with a paper, bearing the heads of questions that every physiologist can or must resolve.

The atmospheric weight or pressure has long been estimated to be equal to 2232 pounds on a square foot or surface. The same upon the body of a man of an ordinary size, is also computed at fourteen times this product, that is, 31,248 pounds, which in an equal dimension surrounds him. Why we are not immediately crushed by such weight distributed on all points, sides, and parts, is the first question; and we will soon hereafter explain.

This law of nature is proved by another. A column of mercury of 29.89 in a glass tube opened and inverted, will be sustained in a cup of mercury as being of an equal weight. The same result may be obtained by a column of 33 feet of water. We have, therefore, the comparative weight of the atmosphere and its compressive power well defined and ascertained. Let us apply it to our subject.

The immense weight, as above expressed, cannot endanger the most tender part of the human frame, for several reasons.

The first is, because that weight or pressure of the atmosphere, when divided upon each distinct point of the surface of the body, is at last reduced to that only of about 15 pounds on each square inch of our own surface.

The second is, that this is equally counterbalanced by a like pressure on any straight, horizontal, or vertical line above and below the compressing forces.

The third is, that a portion of the atmospheric air introduced into the living body (being originally a vacuum) at the first moment of our existence, keeps a balancing re-action against all points of external compression, and leaves the most perfect liberty to the vital powers created for motion and locomotion. And the last preserving cause is, the conflicting external pressure and internal re-action of elastic matter kept up by elastic elements.

It must, indeed, be considered, that if a body is composed of parts endowed with different degrees of elasticity, there will be from them different degrees of resistance, and therefore the total mass of compression will be divided in as many degrees of re-action. Thus, taking the body of a man, we will find that the weight supported by the bony and spheric case of the head, and by the vertebral column, is in a great measure counterbalanced by an *absolute* resistance, or dispersed and lost in different directions. The compression on the other extremities, arms, legs, and thighs, cannot but be partially propagated on the general system. There will be, therefore, only the trunk of the body which will receive the entire effect of atmospheric pressure; again to be divided into two cavities, or centres of action, and each of them alternately assisted by the elevation of the ribs, by the depression of the same and of the diaphragm; and the proof that the abdomen certainly receives its full share of external atmospheric pressure on the trunk, is seen in the full and rapid stream of waters drawn out from it, to the last drop almost, in cases of ascites, by the operation of paracentesis. This pressure also does not interfere with that which surrounds the thorax, in which the respiration is continued in the same and usual manner. It appears, consequently, that a full quarter part only of the atmospheric weight on the body is exercised upon the chest, besides some portion of the same reflected from adjacent muscles. For the sake of argument, we may plausibly infer that this is at most equal to 8000 pounds. But this diminished proportion would, it seems, be too great to maintain a certain kind of equilibrium with the atmospheric air of the lungs and bronchiæ. It would be more than sufficient to check or to prevent the elevation of the ribs, and absolutely impede respiration. We must, therefore, have some other way of accounting for that admirable equilibrium and unceasing corresponding agency which counterbalance, alternatively, the external compression against the internal elastic power, in order that a sufficient degree of heat may be elicited from atmospheric air, and incessantly renewed.

Let us then find out at first, what quantity of air may be contained in the lungs, and how the same can remain, sufficiently capable to resist or counterbalance external pressure.

No one will question the authority of Dr. E. Goodwin, whose Essay on Respiration was so far admired by the celebrated Hallé of Paris, that he translated it into French, for the advantage of his nation. This truly logical experimentalist asserts, that the quantity of atmospheric air contained in the lungs is different at the two periods of expiration and inspiration, 109 cubic inches in the first, and 123 in the second, as we draw in from 12 to 14 at each inspiration, according to its expansion by temperature. But this quantity of 123 inches is yet connected with the atmosphere, and exercises on the surface of innumerable cells, a pressure which is to be multiplied by 15 pounds weight for each of them, and constitutes, therefore, a pressure equal to 1745 pounds. Furthermore, we are to notice that the pulmonary air is permanently at the temperature of 98 or 100° Fahr. The new-born infant has something more from the mother in its blood, and always renews it at each inspiration; and it being much warmer than the external air, what greater degree of elasticity or resistance it comparatively opposes to the external air, is now to be inquired into. By numerous researches which have been made on this subject, principally by Messrs. Bettancourt and Dalton, it is first made evident that the elasticity of water, at a boiling temperature of 212°, is equal to the whole weight of the atmosphere—that is, 31,248 pounds, represented by 30° of the barometer. But the same temperature, which cannot be increased, unless the water is confined, if in this condition it was increased by 30° thermometer, its elasticity would be equal to two atmospheres. And by the same proportion again, in geometrical series of 2, 4, 8, &c., we have thus the term of relative elasticity of air by and from the quantity of 30° temperature, which will operate in the same ratio and in the converse below 212°, as the same above. In other words, a column of air is possessed of a double elasticity against one which has 30° less; and as this is pretty generally the case any where, man can live and exist with only a difference that not materially alters the temperature of the lungs, by 30° higher than the external air; it follows, that the resistance or elasticity of the first is doubled against the second; that is, a pressure of 1745 pounds becomes a pressure of 3490 pounds against 7812, the fourth of one atmosphere 31,248 pounds, not yet equal by more than one half to the first.

The reader will have found out before this time, that certainly it is not our object in this dissertation to ascertain what proportion of compression there exists between the pulmonary air and the external atmospheric compression, unless in so far as to prove that it is sufficient to elicit heat from the former, and thereby fulfil the great purpose of eliminating from it as much caloric as is necessary for the support of life. It is therefore of no great import to the subject we investigate, to find that the compressing power upon the human chest should be double the resistance or elasticity of the internal pulmonic column; when, notwithstanding heat is incessantly generated in it, by the mere power of pressure, it is subjected to the weight of the atmospheric column of air in the lungs, equal to 123 inches, opposing a resistance of 3460 pounds, against the double of that force. The only objection to that proportion would be, that the external force would, by its power, check the elevation of the ribs, and the whole mechanism of respiration. We answer, negatively; first, because this compression cannot exert all its power on the chest, owing to anatomical forms and obstacles which limit the motion of the ribs beyond a certain depression; and, secondly, because the whole external pressure, taken as it should be, on a rectilineal direction, cannot be wholly active on the surface of the lungs, and by the form of the chest, is proportionally directed on the heart, on the mediastinum, and is so far diminished as to preserve a sufficient equilibrium, which, after expiration, admits again such a degree of expansion sufficient to receive about 14 square inches of atmosphere. This column, therefore, is compressed in the air cells; it is condensed to that degree which, according to the known laws of nature, must give out two degrees of heat at each inspiration; and this is the principal source of animal heat.

I have thus explained what is the principal source of animal heat, and the mode and operation by which it is elicited from atmospheric air, according to the most approved existing philosophical principles. We will now come to the demonstration of the law by recent experiments.

In the year 1822, the following remarkable prize question was proposed for the premium of 3000 francs by the Royal Academy of Sciences:—"To determine, by direct experiments, what are the causes and sources of animal heat; whether they be chemical or physiological: that animal heat, emitted by any healthy animal in a given space of time, should especially be determined with the carbonic acid which it produces by respiration, and the same heat compared to that which is created by the combustion of carbon." That learned body, therefore, entertained no doubt respecting the true source of animal heat; but they wished to submit the question to a final demonstration, as much as to give a chance of support to the hypothesis of Brodie of England, relating to the influence of the cerebral system on the production of that heat, which has been subsequently and victoriously refuted by Le Gallois and others.—(*Ann. de Chim. et Phys.* tom. iv.)

I must here remark, that a previous and leading exposition or question, the same which I have just attempted to elucidate, should at least have been adverted to, because it is a primary cause, which, if not admitted, will leave their prize question in the character of a *chemical* one merely, whereas it is primitively one of elementary physiology.

If a column of atmospheric air, as it is just introduced in the lungs, by compression and condensation disengages its latent heat, it loses the principal vinculum of its component elements; and this being effected while it is in contact with the carbon and hydrogen of the blood, the subsequent combinations of carbonic acid and aqueous vapour must naturally take place according to their natural affinities. With Daniel Ellis, we know that pure carbon, existing in its gaseous form, may be separated from its combinations at the ordinary temperature of our body, and combine with oxygen gas, although it be imbibed with water. Instead of which, we will show that, in our temperature and without condensation, pure carbon requires great heat for its combustion with oxygen, before it gives out carbonic acid.

Be this as it may respecting the formation of animal heat previous to that of carbonic in animals, while it is subsequent to the combustion of carbon in inanimated matter, Mons. Despretz, of Paris, took up the question, experimented in both ways with an admirable precision and minute correctness; furnished us with the most satisfactory results, and obtained the prize. His object, it will appear, has been to confine himself within the views and indications by the program of the Academy, and first to determine the quantity of heat elicited during the formation of carbonic acid, and, separately, in that of water, which could be compared to that which he might obtain from the respiration of many different animals.

The first step was to procure pure carbon from the best refined sugar, calcined during one hour in a furnace which could easily melt copper or steel. It was a hard and shining mass; of so difficult combustion that, placed among live coals, it would only turn red, and gave no blaze; and it required to be in contact with pure oxygen to commence combustion; but if removed a quarter of a minute only, it would immediately return to its original black colour, and, like the diamond, lose its brilliancy by the process. It contained not the least vestige of hydrogen, discoverable by any test whatever; in conformity to what Sir H. Davy has already stated, that carbon, strongly calcined, is entirely divested of hydrogen. From all these noticed characters, this elementary matter was formed and obtained in the state of the most perfect purity; and it could not be suspected, that any known substance or principle might remain to invalidate the result of the experiments. A known quantity of this carbon was placed in a crucible of platina, to be enclosed in a round box, and this in the middle of a spiral worm with which it had communication by two tubes—one by which it could immediately reject the gas formed, and the other receive the air or the oxygen; this element was chosen to facilitate the experiment, after passing over the chlorure of calcium, in order to keep it pure, and was to receive the heat through the worm of about 12 inches long and 3 lines diameter: this whole apparatus was to be immersed in a water-calorimeter, which, for many reasons, was preferred to an ice-calorimeter: it was a thin copper case, to be filled with water and covered, furnished with several well graduated thermometers, and with small curved fliers in the water, to be moved by wooden handles, which, in equalizing the temperature of the fluid, should not transmit the heat of the person who moved them. The weight of this whole apparatus, composing the box, the water, and the case, was 31454,6—or about 62 pounds. Four experiments were made, within from 15 to 20 minutes each; that is, during an hour and a half; in each instance the temperature of the materials had been equalized at commencing, by setting the carbon on fire by a kind of fire-work; not to lose time, and reckoning the remaining heat at the end, the average of which was 7914°,7 as the quantity obtained by the transformation of a part of the carbon into carbonic acid, and could melt 104,2 pounds of ice.

The combustion of the hydrogen gas separately made, and estimated by the calorimeter of ice, gave 315,2 parts of water.

We will not find uniform results in experiments made with animals, nor perfectly equal to those from inorganic matter; because the affinities are, in them, subject to the influence of vital action, of age, of health, aliments, and other circumstances which must modify them; but they present, nevertheless striking analogies. The first is, that of the apparatus; a thin copper box into a case of the same metal, and to contain a bird, or quadruped, as conveniently as possible, in another to be filled with water. The weight and temperature of the apparatus are first ascertained, and the animal is isolated among wooden slips or shavings, lest it should communicate its natural heat to the metal, and the cover of the whole is so contrived as to have its edge immersed into a groove filled up with quicksilver. In that situation, air is transmitted to the animal with celerity, at the quantity from about 45 to 50 litres (more than 12 gallons) exactly measured. Now the capacity over the water contained space enough for the air respired, which was carefully analysed after each experiment, generally carried on during one hour and a half or two.—They were made on guinea-pigs, rabbits, dogs, cats, owls, and wild or aquatic birds. Such were the results, that they raised the temperature of the water to a grade from which, abstracting the heat which was due to the formation of carbonic acid and to that of water, there had regularly been a balance of heat from 70° to 89°; which Mons. Depretz has attributed to an accelerated circulation of the animals, to assimilation, to internal movements and frictions, &c. He has remarked, with many experimentalists and philosophers, that although the oxygen of the air is thought to be wholly employed in the formation of carbonic acid and water, and thus to represent the whole quantity respired; yet he thinks, with Davy and others, that a small portion of it, variously estimated, disappears, without being accounted for. Some make it $\frac{1}{22}$, $\frac{1}{80}$, $\frac{1}{120}$, &c. This loss is different at each experiment: it depends upon the age and the species of the animal. This observation is so far interesting that it leads us to the probable inference, that this small quantity of lost oxygen is employed in forming the colouring-matter of the blood.

The better to give our readers a true idea of the method and attention of our experimentalist, we will extract the *exposé* of one experiment only, as performed on three guinea-pigs, in his original style, manner, and numerical estimations.

FIRST EXPERIMENT.

Three Guinea-pigs, female adults.

Duration of the same	1 hour 45 minutes.	
Volume of air furnished, at 9°,44	48 litres 026	10,035 oxygen 37,941 azote
Reduced by calculation to same temperature after experiment		2,587 acid 6,789 oxygen 39,616 azote
Acid formed	2,587 litres.	
Oxygen lost	0.709	
Azote disengaged	1.675	

These three animals have raised the temperature of water 233109,5 of 0°,63 from which we have deducted:

Leaving of animal heat	100	
heat by the formation of carbonic acid	69,6	89,0
heat by the formation of water	19,4	

The oxygen disappeared, equal to $\frac{7}{26}$ of the formed acid.

The azote disengaged from that of oxygen $= \frac{17}{178} = \frac{17}{26}$ of the formed acid.

N. B The animals frugivores give out often a quantity of azote, larger than the oxygen which they absorb, and more heat than the carnivores.

The gas which had been respired usually contained six per cent of carbonic acid. This was ascertained by the test of potash, and the residue was analysed with hydrogen.

All the animals submitted to these experiments and manipulations, shortly after perished. A considerable alteration had, therefore, been produced in their systems, although they were found to be in a regular temperature of 100°, but they had furnished more heat than natural.

It is, therefore, incontestably proved, that respiration is the principal cause of the development of animal heat. Mons. Despretz thinks, notwithstanding, that assimilation, &c. may well have produced an over proportion; and Magendie himself has stated, in his physiology, that " a part of animal heat may well be ascribed to the nutritive phenomena and secretions; because these form a variety of combinations which, like most chemical combinations, may produce elevation of temperature." (p. 406.) I must confess that I am not prepared to embrace nor to oppose such an opinion, so powerful are the arguments on both sides of the question; and as far as I have had occasion to meditate upon it, and practically to exercise my mind over it; for the negative, indeed, I should say;

That I never have seen a case of general disease, in which animal heat was not entirely under the influence and absolute control of respiration;

That although the laws of nutrition, assimilation, and secretion, are more rapidly carried on in the periods of infancy and childhood, they by no means raise the temperature of the body more than that in advanced periods of life, in which the same is low and feeble;

That the time of rest and sleep, being more particularly employed by the natural economy to the functions of assimilations and secretions, is that by which animal heat is always lowered, and requires more precautions to concentrate the same.

On the other hand, it is true, that in local inflammations, phlegmasiæ, and suppuration, in which the colouring matter of the blood is decomposed, there is a much higher temperature than in the red blood; also, in the glandular vessels of the body, from which a greater heat emanates with moisture, without impairing the temperature of the system; also, in cutaneous capillary congestions, in fevers of a violent and malignant nature, which diffuse over the body a high grade of mordicant heat, not experienced on mucous membranes;—all of which is well worthy our inquiries and attention, and may become the subject of future investigation.

New-York, March 1, 1825.

ART. V. *A Case of Epilepsy, from depression of bone, Cured by Trephining, with Observations.* By DAVID L. ROGERS, M.D. of New-York.

MR. D. æt. 46, the subject of the following case, has laboured under fits of epilepsy for the last fourteen years. For the last ten they have occurred so frequent as to disqualify him for labour of any kind, and they have gradually increased in frequency and violence. From their long continuance, his mind is much impaired, and he is fast approaching to a state of idiotism. By a close examination I was able to collect from him the following history of his case:—He stated, that a short time previous to the first attack of fits, while working on board a ship, he received a blow from a bar of iron on the front part of the head, which fractured a portion of the frontal bone. He was taken to the hospital; and there not existing any symptoms of compressed brain, it was not considered necessary to elevate the fractured portion. After a few weeks he recovered from the immediate effects of the injury, and left the hospital in good health. Shortly after this he had an epileptic fit, which returned once a month for three or four years. In the intervals, between the fits, he enjoyed good health. For the last ten years the fits have increased in frequency, and, at this time, he has two and three a day. His appetite is voracious: he is indifferent as to the kind of food which he eats, and seeks only for a sufficient quantity to satisfy his hunger. He complains of pain on the injured side, which extends down the neck and left arm; the eye of the same side is diminished in size; the sight much impaired, and his memory almost entirely destroyed.

The wound was easily found by the large cicatrix which remained. It was situated immediately above the left superciliary ridge of the frontal bone, and over the superior orbital hole. From the situation of the fracture, we should suppose that the external plate of the frontal sinus alone was involved in the injury, but upon a close examination of the bone above the sinus, I discovered a depression sufficiently large to admit the extreme point of my finger. This depression was so small that it might readily have been mistaken for an irregularity of bone, or the mere depression of the external plate, had not the history and circumstances of the case called my attention to it.

Although the appearances, on examination, would not alone justify an operation, yet, from the regular progress of the disease, I felt assured that the irritation, producing these fits, originated from this injury of the head; and concluded, that either a portion of the frontal bone was depressed and giving rise to the irritation, or that a spicula of bone projected from the fracture into the substance of the brain; and from the constant pain felt in the part, which was increased on the approach of the fits, I was led to recommend the removal of the injured portion. The friends readily consented to the operation, the man being incapable of judging for himself.

On the 7th of July 1825, assisted by professor Mott and Dr. King, I proceeded to remove the depressed portion of bone by the application of the trephine.

Much difficulty occurred in elevating the bone, in consequence of the inequality in its thickness; this proceeded from the saw having to pass through the upper part of the frontal sinus. The bone, after considerable difficulty, was elevated; but, unfortunately, the dura mater was cut through for one half of the circumference of the circle. The membranes and the parts around the wound were, by far, more vascular than I have been in the habit of seeing them in operations of this kind. The removed portion of bone, upon examination, was found to have a corresponding ridge upon its internal surface, not sufficient, however, to produce any compression of the brain.

Having made a section of the frontal sinus, a part of the *posterior table* was removed with the circular piece. This portion of the internal table had been fractured, and separated for some distance from its inferior attachments to the frontal plate, and driven back upon the substance of the brain. Its sharp edge was worn round and smooth, resembling the natural termination of bone.

Those present were satisfied that this portion of the frontal sinus was fractured and separated by the blow on the head, and was the cause of the subsequent mischief. The parts were drawn together and dressed in the usual form.

2d day. He has been very restless through the night; he complains of considerable pain in the head, and in great dread of a return of the fits; the excitement less than was expected. He was ordered a strict antiphlogistic diet, with a drachm of the sulph. magnesia every two hours.

3d day. He has had no return of the fits, and has rested much better through the night; his medicine has operated freely; the pain continued in the head and arm; the same treatment pursued. He continued from this time gradually to improve, without any return of the fits, until the twenty-fifth day after the operation. The wound, at this time, was entirely healed, and he was permitted to sit up for a short time; when he imprudently overloaded his stomach with food, in the absence of the nurse. I was called in haste to witness a return of the fits. I found him stupid and almost insensible, much resembling apoplexy. This was followed by high arterial excitement and inflammation of the brain. By active depletion he was, in a few days relieved. The pain in the head and numbness in the left arm gradually subsided. He was discharged as cured on the 20th of August.

Nine months after the operation I saw this man in the street. He stated, that his memory had nearly recovered its usual strength. He has had no return of the fits, and is so far re stored to health as to attend to his business without any inconvenience.

A few general remarks, in relation to fractures of the skull, would not be considered improper in connexion with the present case, as it is possible that it may be referred to in favour of the indiscriminate use of the trephine in fractures of the skull, and the few solitary cases, in which epilepsy has followed these injuries, should be adduced in its support, without any reference to the immediate effect of such injuries.

The division of fractures into simple and compound, has led surgeons to make a difference in the treatment of these accidents. In the first, it is advised not to operate without symptoms of compressed brain ; and in the second, to elevate the bone without any reference to its immediate effects upon the brain.

Although the distinction of compound and simple fracture is proper in the extremities, inasmuch as the treatment of the two accidents materially differ, yet when applied to the head we are not satisfied of its practical utility. It is apt to lead those astray who believe, that a difference in name must consequently require a difference in treatment. This not being the fact in the present case, and these two varieties of fracture requiring the same general treatment, the distinction of simple and compound, for practical purposes, should be avoided.

It is now generally admitted, that the operation of trephining is unnecessary in simple fractures of the skull, unattended with compressed brain. Mr. Abernethy has done much in establishing this practice, and the result, thus far, has been in its favour. Cases are daily occurring of depression of bone much below its natural surface, which recover without being elevated, and, as a general rule, no inconvenience is experienced from the injury ; and as far as our observation extends, we are well satisfied, that the simple depression of bone seldom or ever produces compression of the brain without an extravasation of blood, which we believe, in most cases, is the cause of compression.

A course of bold depletion is necessary to prevent arterial excitement, which is the only circumstance that is to be dreaded in the treatment of these cases. If a considerable portion of bone is depressed, and inflammation is permitted to progress, it frequently happens that the expansion of the brain causes symptoms of compression, and we are obliged to resort to the saw for the removal of the bone. This may, however, be prevented by proper depletion and care on the part of the surgeon.

I am well aware, that it is the practice of some surgeons to trephine for simple fractures. An operation has lately been performed in the neighbourhood of this city, when the patient had, at least, sufficient sense to walk about the room, and discuss with the surgeon the merits of the operation. Such a practice should be severely reprobated; it unnecessarily places the life of the patient in great hazard. I shall here offer two cases of simple fracture, with depression, which recovered under the depleting plan.

Case I. J. R. aged 12 years, fell from a hay-loft upon a stone, the 16th of April 1823. He was brought to the house insensible. I saw him two hours after the accident; he had recovered his senses perfectly, but complained of pain from the contusion of the scalp. The blow was received on the right parietal bone, a portion of which was depressed, of about three inches in circumference and at least two lines below the surface. As no symptoms of compression were present, I did not consider it proper to elevate the bone; and according bled him freely from the arm—ordered a mild cathartic, with bread and water for his diet.

On visiting him the next day, he complained of considerable pain in the head, with intolerance of light, and an inflamed state of the eye. I bled him largely from the arm, and ordered six leeches to the temple. This practice was continued for twelve days, and he was bled at least once a day, with other means of depletion. The symptoms gradually subsided, and at this time he enjoys good health, without experiencing any inconvenience from the injury.

Case II. I was requested by Dr. C. to visit a poor child, who had fallen upon the post of a chair and fractured its skull. The Doctor had left it insensible and labouring under symptoms of compressed brain. I saw it three hours after the injury; it was then insensible; I found a considerable portion of the frontal bone driven in. The depleting plan was advised. I have learnt from Dr. C. that this child completely recovered.

Many surgeons adhere to the old practice of elevating depressed portions of bone, from a belief, that its unnatural situation would be a source of irritation to the brain, and, at some future time, epileptic fits would be the consequence.—This opinion is supported by Sir A. Cooper, in relation to compound fractures—and he recommends the removal of bone. We are not satisfied as to the correctness of this distinction; or from what circumstances, connected with these injuries, we should dread epilepsy in one case more than in another. The only difference, in the two cases, proceeds from the bone—in the one case, being exposed to the air; while in the other, it is covered by the integuments. In relation to the bone, and they are in the same situation, and in either case, our fears are founded upon the belief, that newly formed bone occasionally proceed from the internal surface of the depressed portion; and from their irritation on the brain, produce epilepsy. This distinction, we are well convinced, cannot be supported by practice.

The question would naturally arise, why is depressed bone exposed to the air more likely to have preternatural growths, or protuberances projecting from it, than those covered by the common integuments?

Unless this question can be satisfactorily answered, we should be inclined to regret this distinction in fractures of the skull, and to pursue the same plan of treatment in all cases.

I shall submit two cases of compound fractures of the skull, which came under my care while Resident Surgeon to the New-York Hospital. One I have transcribed in detail, to show the extent to which depletion may be carried in these cases with safety and advantage to the patient.

Case III. O. Platt, a robust man, aged 21 years, was admitted into the New-York Hospital, July 6 1822, with a compound fracture of the skull, produced by a fall from a scaffold about ten feet high. The frontal bone was fractured on the right side, with a depressed portion of four inches in circumference. At the time of his admission, the wounded temporal artery was bleeding freely; his senses were perfect, and without any symptoms of depressed brain; he complained of slight pain in the head. He was placed in a dark room, and ordered bread and water for his diet, with simple dressings applied to the wound. Two hours after his admission, considerable re-action came on. He was bled ℥xvj. from the arm.

7th. Passed a sleepless night; complained of pain in the bowels, with great irritability of the stomach; pulse quick and hard; bled ℥xx; give him the aquæ ammonia acetat. ℥ss. every hour, and apply warm fomentations to the abdomen. 7 p. m. pain returned in the head; bled ℥xvj. which gave him much relief

8th. Rested well the first part of the night; the pain in the head has returned, with slight symptoms of compression; bled ℥xxv; he has not had a passage from his bowels in two days; let him have the infus. sennæ cum sulph. magnesiæ, to be followed by an enemeta. 7 p. m. the medicine has not operated; he was ordered the ol. ricini ℥ij. and bled ℥xvj.

9th. The constipation continues: cathartics continued; pulse much excited; bled ℥xx. 7 p. m. the cathartics have not operated; bled ℥xvj.

10th. Passed a very restless night; complains much of his head; pulse hard and quick; has had no passage from his bowels; let him have calomel grs. x. every six hours; bled ℥xvj. 7 p. m. much relieved by the operation of the calomel.

11th. Rested better than usual; slight pain in the head; bled ℥xvj.

12th. Rested well, and feels but little pain in the head: dressings removed from the wound—it looks healthy, with a free suppuration; an abscess has formed under the occipito-frontalis muscle, extending to the right side; an opening was made for its discharge, and the wound dressed as before. The suppuration, under the scalp, gradually lessened by the use of compresses and bandages. Granulations, from the edge of the wound, in a short time covered the bone; and at the time of his discharge from the house, his health was completely restored and the wound nearly healed.

This man I occasionally see (1826) and he has felt no inconvenience from the injury.

Case IV. J. T. admitted November 12th 1822. This poor man received a blow from a brick thrown at him with great violence. The integuments were extensively lacerated, and a portion of the frontal bone driven in; the pulsation of the brain could be distinctly seen; his senses were perfect.—The depleting plan of treatment was pursued, but not to the extent of case third. The mild symptoms of inflammation which came on subsided in a few days, and in three weeks he left the hospital in good health. Not having seen this man after he left the house, the result of the case is uncertain.—The dressings to the wound in this, as well as the last case, were not removed until all symptoms of inflammation had subsided. This we consider as an important improvement in the treatment of wounds and operations about the head.

The result of practice, we believe, will warrant the rule, that the operation of trephining should never be performed under any circumstance, unless to relieve pressure on the brain.

ART. VI. *Quarterly Report of Diseases, treated by the Physicians of the New-York City Dispensary, from the 1st of January to the 15th of March, 1826.*

	Jan	Feb.	Mar	Tot.
Atrophia	1	0	0	1
Asthma	2	1	2	5
Anasarca	1	1	0	2
Apthæ	1	0	1	2
Aneurisma Art. Fem.	1	0	0	1
Amenorrhœa	3	16	10	29
Abscessus	0	7	6	13
Ascites	0	3	1	4
Aphonia	0	0	1	1
Bronchocele	1	0	0	1
Bronchitis		10	5	16
Catarrhus Epidemicus	189	160	57	406
Cynanche Trachealis	3	2	1	6
——— Tonsillaris	5	2	0	7
Cephalalgia	2	6	7	15
Cachexia Syphiloidea	1	1	0	2
Colica	2	1	0	3
Cataract	1	0	0	1
Cystitis	1	0	0	1
Contusio	21	30	11	62
Cholera	2	5	1	8
Concussio Cerebri	0	1	0	1
Convulsio	1	1	0	2
Dyspepsia	13	12	11	36
Delirium a Potu	3	6	3	12
Dentitio	1	4	2	7
Debilitas Simp.	5	2	1	8
——— Nervosa a Opio	1	0	0	1
Diarrhœa	7	5	5	17
Diabetes	1	1	0	2
Dysmenorrhœa	2	1	0	3
Dysenteria	1	2	1	4
Erythema	0	0	1	1
Epilepsia	1	2	0	3
Erysipelas	2	2	1	5
Febris Simplex	24	16	7	47
——— Remittens	0	10	1	11
——— Intermittens	5	7	3	15
——— Typhus	0	2	1	3
——— Puerperalis	0	1	0	1
Fractura	3	5	1	9
Gastritis	0	1	1	2
Gelatus	2	3	0	5
Gastrodynia	0	2	0	2
Hydarthrus Scrofulosus	1	0	0	1
——— Rheumatismus	1	0	1	2
Hæmoptysis	2	2	2	6
Hæmatemesis	1	0	0	1
Hæmaturia	1	0	0	1
Hæmorrhois	5	2	2	9
Hysteria	1	0	0	1
Hydrocephalus	1	0	1	2
Hepatitis Chron.	10	3	4	17
——— Acut.	0	2	0	2
Herpes	2	4	5	11
Hernia	0	2	2	4
Icterus	1	0	1	2
Ischuria	0	2	0	2
Lepra Vulg.	1	1	1	3
Lumbago	1	3	2	6
Leuchorrhœa	3	3	2	8
Lichen Senilis	1	0	0	1

	Jan.	Feb	Mar.	Tot.
Lichen Simplex	0	1	0	1
——— Pilosus	0	1	0	1
Luxatio	1	0	0	1
Marasmus	4	0	0	4
Menorrhagia	2	1	2	5
Nebula	2	0	0	2
Otitis	2	5	2	9
Ophthalmia	10	5	4	19
——— Tarsi	0	1	0	1
——— Purulenta	0	3	2	5
——— Scrofulosa	0	0	1	1
Obstipatio	7	5	6	18
Otirrhœa Purulenta	0	2	3	5
Orchitis	0	4	1	5
Pleuralgia	4	9	5	18
Pneumonia	37	47	21	105
Phthisis Pulmonalis	16	11	5	32
Peritonitis	0	0	1	1
Phrenitis	1	0	1	2
Pleuritis	22	20	7	49
Paralysis	2	2	1	5
——— e Plumbo	2	0	0	2
Porrigo Simplex	2	1	3	6
——— Favosa	5	10	1	16
——— Decalvans	0	1	0	1
Plethora	4	1	2	7
Pertussis	3	0	7	10
Paronychia	3	2	1	6
Psoriasis Simplex	3	1	2	6
Parotitis	1	1	0	2
Paraphymosis	1	0	1	2
Phlegmon	0	3	0	3
Pernio	0	1	0	1
Prolapsus Uteri	0	1	0	1
Pustulæ	0	1	0	1
Rheumatismus	36	27	13	76
Rupia	0	1	0	1
Surditas	2	0	1	3
Stremma	8	8	4	20
Syphilis	11	14	4	29
Sycosis Menti	1	0	0	1
Scabies Inveterata	2	1	1	4
——— Vesiculosa	1	3	2	6
——— Purulenta	4	1	0	5
Scrofula	1	3	0	4
Scarlatina	0	2	0	2
Strophulus Intertinctus	0	1	0	1
Sideratio	0	0	4	4
Tubercula	0	1	0	1
Tumor	4	0	3	7
Tussis Chron.	4	0	2	6
Ulcus Chronicus	14	13	2	29
——— Corneæ	1	0	1	2
Ustio	11	4	0	15
Urticaria Evanida	1	0	0	1
Urethritis	2	6	6	14
Vulnus	11	9	3	23
Vesicula	0	1	0	1
Variola	2	1	0	3
Vermes	7	15	5	27
Varicocele	1	0	0	1

Total 1509

The early part of the winter was extremely healthy, and very little inconvenience was experienced from the weather, which was remarkably mild, dry, and clear. During the last week of December, however, it became unsettled and damp. The second week of January was more clear and cold. It was observed by many of the older inhabitants, that the barometrical and thermometrical changes, during this month, were greater than had been experienced for a number of years previous. The prevailing winds were west and north-west; the weather was cloudy 12 days—fair 13—rain 4—snow 1½—and snow and rain ½. The highest thermometrical range was 61°—the lowest 2°. Pneumonic affections had become somewhat rife during the second week of January, and were yielding readily to medical treatment, when the weather becoming foggy and damp, the disease suddenly assumed a *typhoid** character. Upon this change, the tongue became dry, dark, and crusted, and irregularly intersected with deep fissures—the pulse small and wiry—skin parched—slight subsultus—some coma—and, in a few cases, mental wanderings. In 36 or 48 hours the symptoms became more favourable upon the use of alterative doses of calomel in combination with Dover's powder, followed, after a short time, by brisk purgatives.

It will have been perceived by our report, that the prevailing disease, during the last quarter, has been the *epidemic catarrh*, or *influenza*. It has been observed by Rush, that this epidemic did not seem to arise from any appreciable condition of the atmosphere. The validity of this opinion would afford an interesting subject of discussion. Did it comport with the intention of this report, we might also enter into an inquiry, whether the ultimate exciting cause of this epidemic consisted of a long series of atmospherical changes—or, of the immediate and sensible effects, arising from the vicissitudes of a few days? The facts alone can be given; the conclusion will be left to the reader. The continual succession of atmospherical variations, during the month, have already been hinted at. It may be further remarked, that on the 15th the barometrical range was the *lowest*, and the thermometrical the *highest*, of any previous or subsequent day during the month. The medium height of the barometer, on the 12th, 13th, 14th, and 15th, was as follows :

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* There may be an objection to this term, as it would seem to imply *debility*, but in these cases *debility* did not exist: it was a *depression*, and not a *loss* of strength.

12th - 30,50
13th - 30,24$\frac{1}{3}$
14th - 30, 00
15th - 29,37$\frac{2}{3}$.

The wind also, which had previously been generally west and north-west, on the same day changed to the south-west. By referring to the register of the Institution we find, that on the 16th a greater number of cases of catarrh had been prescribed for than on any previous day. A few cases, however, had occasionally presented themselves during the winter, but these were of a more simple character than those which subsequently prevailed.

About the 20th the epidemic had spread throughout the city, attacking children and adults of both sexes and of every temperament and condition. The invasion of the disease was characterised by frequent and severe chills—pain in the head, generally over the eyes—depression of strength—foul tongue—full, but not a hard, pulse. After the disease had become more fully formed, the pain in the head increased, and the larynx and bronchiæ became severely affected ; a total defect of taste was generally experienced ; and, in many cases, there were acute pains in the limbs. A cough was universal ; it was convulsive and reproduced at unequal intervals, accompanied by a sense of tearing along and beneath the sternum, and a diffuse pain and sensation of heat throughout the thorax. The stomach in every case was deranged, as evidenced by a foul, thickly coated tongue—nausea—loss of appetite—and, frequently, by spontaneous vomiting.

Bleeding was seldom required, except in females in advanced pregnancy, and in a few cases where there was a predisposition to acute pneumonic affections, or where the brain was principally affected. In the last, venesection was indispensable.

The treatment found most successful, where no extraordinary symptom intervened, was the prompt administration of an emetic, abstinence for a few days, and small and repeated doses of the neutral purgative salts, or of the super tartrate of potash, in combination with tartarized antimony. In many cases the simple administration of a full dose of calomel and jalap, followed by mild diaphoretics and abstinence, sufficed to effect a cure.

In children, the throat principally suffered; and the epidemic, in these cases, put on the form of *croup*. The usual remedies proved successful. *Erysipelas* was observed to attack a few individuals, especially among the blacks. In one case of this affection, where it attacked the head, the brain was involved, which was no sooner relieved than symptoms of *typhus* supervened. Calomel and opium, with mild tonics and laxatives, and the external application of rectified spirits, readily effected a cure.

The epidemic prevailed throughout the greater parts of the months of January and February. Those who presented themselves during the latter part of February, generally complained of harassing cough, loss of appetite, difficult expectoration, and violent intercostal and epigastric soreness. The two latter symptoms were produced mechanically by the cough. The difference between this intercostal pain and pneumonic inflammation was strikingly illustrative of the disease. The manner of the patient was not consistent with pleurisy or pneumonia. In these acute diseases, the position of the patient evinces a desire for a free expansion of the lungs; he lies on his back with his arms somewhat extended; his tone of voice is expressive of the mischief that is going on internally—it is low and laboured. In the influenza, the patient relaxes the muscles of the chest by inclining the body forward; the pain is increased by motion or the slightest pressure; it is not stationary, but will be most distressing at one time on the left, then change to the opposite side—now it will be felt along the sternum, then again beneath the scapula;[*] the concomitance of the same sense of soreness and pain in the abdominal muscles, is also a distinguishing characteristic, as well as the description which patients generally give of the seat of pain—its being external and not deeply seated. These distinctions are noticed, because we fear that bleeding has been directed with manifestly bad effect in many of these cases, under the supposition that the pain arose from pneumonic inflammation. In no other way can the number of deaths, which occurred in this city, be accounted for.[†] Bleeding, in this stage, was not indicated by the pulse; it was generally small and feeble, although quick. The cough was kept up, in a great measure, by the gastric derangement; for there were universally present, at this time, a defect of appetite—constipated bowels—foul, slimy tongue—occasional vomiting, and violent head-ache. Relief from these symptoms was speedily experienced by the exhibition of the following powder:

℞ Hyd. sub. muriat.
Pulv. Ipecac. āā ℈j.
Misce et in part. iv. Div.

One of these powders was taken every half hour, until vomiting was produced. A stimulating plaster or embrocation applied to the chest, always proved beneficial; and mustard cataplasms laid over the epigastrium, removed the pain and quieted the uneasiness of the stomach. The disease sometimes produced fearful effects in those who were subject to pneumonic affections, in asthmatic patients, and those who were labouring under pulmonary consumption. It terminated in phthisis in many who were predisposed to that complaint. The mechanical effects of coughing were sometimes attended with danger. By referring to the annexed report, it will be perceived that four cases of *hernia* presented themselves in February and March. It will be recollected, that it was at this time the cough was most harassing. Another observation will be made by the same reference. In January there were only *three* cases of *delirium a potu;* in February there were *six*, and up to the 15th of March there were *three*. The greater number of cases after the first of February, we think, may be attributed as well to the mechanical agitation (and consequent momentary, although frequently repeated, determination to the brain) as to the foul condition of the stomach and attendant debility.

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[*] This *metastasis* may be considered as somewhat peculiar to the disease.

[†] Of the great variety of cases of this disease which were necessarily included in upwards of 400 patients prescribed for from this Institution, not one death occurred.

One of the cases of hæmoptysis, was a woman, who, whilst labouring under a fit of coughing, ruptured a vessel, and by one gush threw up about three pints of blood. She was seen some time after, and prescribed for without any hopes of recovery. A blister, however, was applied to the chest, and the super acetate of lead, with opium, was directed to be taken. These remedies alleviated the distress. She died on the fourth day, without, however, any recurrence of the bleeding.

It was during this month (February) that the two cases of acute hepatitis occurred. In one a blister had been applied in the first stage by a physician, before application was made at the Dispensary. The effects produced were such as might have been expected—an aggravation of the symptoms. The same patient was bled *ad deliquium;* but the relief afforded was only transitory. Both cases were soon relieved by the use of calomel in combination with antimony, followed by active calomel purges.

The first weeks of March were extremely unpleasant; the wind continued in one quarter (N. E.) for twelve or thirteen days, during which time it rained continually. The diseases prevalent up to the date of this report, were a few cases of rheumatism, infantile catarrhs, whooping cough, and pneumonic affections. The majority of the patients were convalescents who had suffered from the epidemic.—Acute cephalalgia, (in every case accompanied by disordered stomach and constipated bowels) chronic cough and debility, were the chief symptoms. An *emetic* and *saline purgatives* relieved the first. Believing that the *cough* was kept up in a great measure by the disordered state of the stomach, the indication appeared to be, to restore the tone of this organ and thus quiet the irritation. With this intention, after the *primæ viæ* had been evacuated by the proper remedies, the following mixture was directed:

℞ Mucil. G. acac. ℥ij.
Lact. Ammoniac. ℥ij.
Tinct. Capsici ʒi.
Tr. Opii. Camph. ʒ ss. M.

The patient was also directed to take an infusion of colombo through the day. These remedies produced the desired effect; the appetite returned, the food was retained without the sense of weight which had previously existed, and the cough ceased. A trial of these prescriptions was made in upwards of fifty cases, and in none did it not prove serviceable.

The cases of *paralysis from lead*, were a girl who had worked as a type polisher, and a painter. The girl had a leuco-phlegmatic appearance and she complained of intestinal spasms, loss of appetite, constipated bowels, and paralysis of both the hands. Calomel in small doses in the afternoon, followed by purgatives next morning, with stimulating embrocations, and friction to the hands and wrists, soon restored her bowels to a healthy state and her hands to their use. The case of the painter was of longer standing: in him the arm was emaciated and the hand useless. The same remedies as in the first case, with the addition of Pemberton's splint, effected a cure in a few weeks.

The subject affected with *dementia*, was a barber, about 18 years of age, who, previous to having a *gonorrheal affection*, had been remarkable for his quick apprehension and his pliant and cheerful disposition. For his gonorrhea he applied to an apothecary, who gave him some medicine and an injection, which had the affect of checking the disorder. A few days after this suppression, he became melancholy, morose, and obstinate—this state continued for a short time, when it was succeeded by religious frenzy. In this situation he remained seven or eight weeks, during which time his bowels were obstinately costive and his appetite irregular. To this state of mental excitement, succeeded one of perfect listlessness, which continued about three months—his bowels still costive, his skin dry, and his hands and feet cold. Dr. Wright now saw him for the first time—seven months from the beginning of his complaint. A blister had been previously applied to the back of his neck, and followed by antimonial ointment; this had produced a large crop of eruptions. He had been recently cupped on the temples—had taken calomel, both in alterative and purgative doses—all without any apparent effect. Dr. W. found him listless, pertinaciously silent, his countenance vacant, his lower jaw fallen and continually wet, from an unconscious drivelling of saliva—and his whole appearance perfectly idiotic. The calomel and ointment were continued, with the addition of an infusion of senna, and salts every second morning. The medicine was not taken regularly, and he had but one stool during a week. It at length became impracticable to administer any internal remedies, and he passed another month without any amendment. Dr. W. was now led to believe (from making a more particular inquiry, and by perceiving the development of new symptoms) that the mental disorder arose from a symptomatic affection of the brain, and that the chylopoietic viscera were mainly to be attended to. As the patient made a silent but effectual opposition to taking medicine, Dr. W. was induced to use the *nitro-muriatic bath*, in the following proportions :

℞ Acid. Nitric.
Acid. Muriat. āā ℥iv.
Aq. Font. ℥viij. M.

One ounce of this was added to each gallon of water, previously heated to 90°. This was used every night as a pediluvium. Very little alteration was perceived until the seventh day—his sleep then became more composed, and the skin somewhat moister : he also manifested some anxiety, and was sufficiently aroused to rub his skin, which had now become slightly affected by the bath. In conjunction with the pediluvium, he was ordered to be sponged with the acidulated water, and to be rubbed with the flesh-brush.—Another week passed without much alteration, except a slight erythematic eruption. No stool for fourteen days. The day following the erythema the patient became restless, and was constantly pressing upon his belly—in a little time he had a copious and extremely offensive discharge from the bowels, resembling tar in colour and consistence; throughout the day he had frequent discharges of the same appearance; he slept well that night, except when called to the chair; his listlessness was, in a measure, destroyed, and he now spoke a few words, not a syllable having escaped from him previously for upwards of three months;—pediluvium continued. A day or two afterwards he had an attack of diarrhœa, accompanied by discharges similar in appearance to yest—at other times like tar. He now became exhilarated and talked incessantly. Proper remedies were directed for the diarrhœa, and the pediluvium and friction continued. Two days afterwards, his mind became more composed—his stools were more natural and less frequent. From this time his health improved—his mental faculties were gradually restored, and he afterwards shipped on board a vessel as steward.

JOHN J. GRAVES, M. D. } *Comm.*
BENJ. OGDEN, M. D. }

REVIEW.

Art. I. *An Essay on Venereal Diseases, and the Uses and Abuses of Mercury in their Treatment. Illustrated by Drawings of the different forms of Venereal Eruptions.* By Richard Carmichael, M.R.I.A. &c. &c. *With Practical Notes.* By G. Emerson, M.D. Philadelphia. 1825. 8vo. pp. 360.

Among the recent improvements in the practice of physic, not the least conspicuous or beneficial has been the adoption of the non-mercurial treatment in a large majority of venereal affections. It was long held as an incontrovertible opinion among physicians, that mercury was the only remedy capable of subduing every form of disease to which the organs of generation are liable. Even gonorrhœa itself was not excepted from this general rule by more than one respectable writer. Of the utter uselessness of this latter practice, as well as of the evil consequences not unfrequently resulting from it, it is not necessary here to speak. Equally unnecessary, and frequently as injurious, has mercury been found to be in a large variety both of primary and secondary affections, consequent upon infection; and the experience of many enlightened and observing practitioners goes far to establish the conclusion, that in no form of syphilis is mercury indispensable, much less is it a specific for any one of them. The importance and value of this fact, if fully established, will readily strike the mind of any one who has had the misfortune to witness the inefficacy of the indiscriminate exhibition of mercury in the cure of the venereal disease. Such failures have, in some instances, been imputed to peculiar idiosyncrasies of patients; in others, to the existence of a morbid constitution, a tendency to scrofula or pulmonary consumption. In these latter cases, mercury has not only failed of effecting a cure of the syphilitic affection, but proved positively detrimental to the life of the sufferer. Any means, therefore, of obviating the necessity of a recurrence on all occasions to this article, must be of immense value; and, accordingly, the labours of the Army Medical Board in England, which have most satisfactorily settled this important question, cannot be sufficiently prized. In order to exhibit the extent of information collected on this point by this highly respectable and useful institution, it is only necessary to refer to the circular distributed among the surgeons of the English army, containing a summary of the conclusions on the question of syphilis and its treatment, drawn up in 1819, from the answers of regimental surgeons. From this invaluable document it appears:

1st. That since December 1816 to December 1818, there were treated for primary venereal ulcerations (including the syphilitic chancre of Hunter,) *without mercury*, 1940 cases; and, *with mercury*, 2827.

2d. That of the cases treated without mercury, 96 had secondary symptoms, and of those with mercury, 51.

3d. That of those treated without mercury, its use was resorted to in 77 cases; 12 of which were cases of secondary symptoms, and 65 of primary symptoms. The reasons for its use were sloughing, ulcers in the throat, protracted cur , &c. &c.

4th. That of the 1940 treated without mercury, not one has been discharged the service on account of injury done to the constitution, and not one has failed to regain his health; whereas, two men treated by mercury were discharged on this account.

5th. Secondary symptoms, supervening on the use of mercury, appear to have been more severe and more untractable than where no mercury had been used.

6th. The average period required for the cure of primary symptoms without mercury, and when bubo did not exist, was twenty-one days; and, with mercury, thirty-three. When bubo was present, forty-five days were required in the first, and fifty in the second cases. So likewise the average period for secondary symptoms, in the first, was from twenty-eight to forty-five days; in the second, forty-five days.

The treatment pursued, where mercury was not used, consisted of—confinement to bed, in many cases—in all, to hospital, spoon diet—occasionally general bleeding—purgatives—antimonials—emollient, soothing applications—cold or warm water, with perhaps the addition of liquor plumbi; in the latter stages, the lotio hyd. submuriat. or muriat. in aq. calcis—lotio sulphat. cupri—argent. nitrat. &c. In the treatment of secondary symptoms, without mercury—purgatives—antimonials—nitric acid—sarsaparilla—the warm bath—the nitro-muriatic acid bath—gargles, when the throat was affected—and in nodes, fomentations, scarifications, leeches, and blisters, were had recourse to.

From this statement it appears, that all kinds of sores, or primary symptoms of syphilis, may be cured without mercury. The following note by Dr. Emerson conveys the highly satisfactory information, that in our own country the same results have been obtained from similar trials.

> "To this testimony, from abroad, the editor is happy in having it in his power to add, that similar experiments made by American physicians have been attended with similar results. In Philadelphia, the non-mercurial practice has been tried extensively by Dr. Thomas Harris, Surgeon in the U. S. Navy. Having charge of the Philadelphia Navy Yard Hospital, Dr. Harris possesses an opportunity for making such investigations, far more ample and advantageous than can be afforded by the range of private practice. For nearly six years he has discarded every preparation of mercury from his practice, and asserts that he has ever since found all the forms of syphilis more tractable, and what is of the utmost importance, entirely exempt from secondary symptoms. He further declares that he has found that variety of ulcer described as the true Hunterian Venereal chancre, yield most readily to the non-mercurial treatment. The importance of the subject leads us to indulge the hope, that the Doctor will soon favour the public with a detailed account of his practice, and the results of his experience." 54, 55.

For the first suggestions in ameliorating the treatment of syphilitic diseases, by diminishing the quantity of mercury used, we are indebted to Hunter, Abernethy, and Pearson.

It was, however, reserved for Mr. Carmichael to systematize and reduce to order the scattered observations and ingenious speculations of his predecessors, and to enforce his doctrine with a mass of testimony which is irresistible in itself, and which, if it still wanted confirmation, has most amply received it in the document of which we have already furnished a short but comprehensive abstract. Such confirmation cannot be but gratifying in the extreme to an author, so ardent in the pursuit of knowledge as Mr. Carmichael appears to be; and it should also inculcate a lesson upon those critics who are more anxious to display their own acuteness and superiority, than to regard a new discovery with candour and modesty. One of these prophesied. in a leading journal in Great Britain, that Mr. Carmichael's doctrines " were a premature grasp at generalization, and would not stand the test of experience, but prove to be at variance with more extended observations."

The volume now before us is the second edition, considerably altered and enlarged, of a treatise first published in 1814, and it is enriched with some additional notes by the American editor, Dr. Emerson. This gentleman thus defends his attempt:

> "Perhaps there may be some who will think that the editor of the present American Edition has undertaken a useless task in superadding any thing to the work of the author. Although he could, if necessary, adduce many good arguments in favour of his undertaking, he will trust his justification to a very few.
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> "Plants of one soil usually undergo some variation when removed to another. This order of nature applies with great force to diseases, so that modes of treatment, however well adapted to the climate and other circumstances of one country, are not often perfectly applicable to those of another. Some modifications will, therefore, often be found requisite to accommodate the details of foreign works to new localities. For want of such adaptation, principles and discoveries have been often abandoned which otherwise might have augmented our stock of useful resources. Hence the utility of such comments as serve to point out variations, and to correct or confirm opinions and practice of foreign origin. To this task the editor felt himself strongly inclined, from having for many years followed in the same track with the author. Such in fact has been the success of his practice founded upon similar principles, that, independently of the testimony of other physicians of this country, whose more ample op-

portunities have added the strongest confirmation, he ventures to recommend their general adoption with unhesitating confidence." Preface, p. xi, xii.

The contents of Mr. Carmichael's work are divided into seven chapters. The first treats of those morbid poisons which are most nearly related to the syphilitic, such as the yaws—the sivvens—Canadian distemper—the lepra septentrionalis of Sweden and Norway—and the button scurvy of Ireland. Evidence is then attempted to be brought forward in favour of the existence of venereal diseases which do not arise from the poison of syphilis. The main ground on which Mr. Carmichael rests his arguments on this head, is the characteristic distinction of the true syphilitic ulcer or chancre from all other ulcers occurring on the same parts, by means of the hardened edge and base. This mark he deems peculiar to the former only, and so invariable an attendant on it as never to be mistaken. The extent to which this diagnosis is to be relied on, has been the subject of frequent question among recent writers; and Mr. Hennen more especially, in his invaluable work on Military Surgery, denies its accuracy. Our experience is too limited to enable us to decide between observers possessing such ample means of information; but if we are not much mistaken, the belief in which Mr. Carmichael indulges, in common with many respectable writers, that syphilis is a specific disease, imported by Columbus from this country, has tended very materially to bias his mind on this important question of its specific difference from other venereal affections. Now that this belief, though maintained upon very high authority, is indisputable, we are not disposed to admit; nay we very much question its accuracy. This is not the place, however, for a discussion of its merits, and we shall therefore content ourselves with referring to a very elaborate and well-written paper on this subject, written by Jourdan, a French physician, and translated by Dr. La Roche of Philadelphia, for some very conclusive proofs in favour of the existence of the true syphilis in Europe prior to the return of Columbus from America. The opinion of the Editor, Dr. Emerson, on this subject, is thus expressed:

"Notwithstanding the ingenious arguments adduced by the author in this chapter, there is still reason to believe him essentially wrong in his principal conclusions. Circumstances of a very decisive nature, lead to a belief in the identity of the source, as well as the great antiquity of all the forms of syphilis, and the consequent overthrow of the original title so long urged in favour of America. That all the forms of syphilis are as ancient as the custom of promiscuous intercourse between the sexes, is by far the most probable conclusion. Contrary to the general opinion, which admits this disease to be communicated and disseminated only by infection from one person to another, there is perhaps no medical fact better established than that it is likewise spontaneously generated by promiscuous venery." p. 37.

In the *second* chapter we are presented with observations on venereal diseases, their specific distinctions, and appropriate mode of treatment. In the course of some preliminary remarks, we meet with the following passages, which will not be lost upon our readers.

"Mr. Chevalier sees nothing of obscurity in a gun-shot wound, which ought to prevent us from treating it according to the general principles of surgery applicable to contused and lacerated wounds; and, therefore, restricts the use of the knife to the attainment of a precise object; such as the extraction of an extraneous body, the suppression of hæmorrhage, or the division of a constricting fascia. And, on the same principles, let us restrict the exhibition of mercury to a precise object; such as the general principles of medical science would authorise, for the cure of the symptoms of a morbid poison without considering mercury as a specific, or the disease for which it is administered incomprehensible, and therefore only a fit object for blind empirical practice." p. 40, 41.

On this passage Dr. Emerson with great pertinency remarks, that "the doctrine and practice here inculcated, may be regarded as a fulfilment of the prediction of the late Professor Rush, who, in his lectures, asserted it as his belief that the time would come when syphilis, like other diseases, would be treated upon general principles."

The next extract refers to some mistaken views entertained by some erudite practitioners with respect to mercury.

"By one of these we learned, that not only the new symptoms which arose under the most severe courses of mercury, but even the old ones which resisted its influence, were attributable to the remedy, and not to the disease. Hence we have descriptions of mercurial chancres, mercurial ulcers, pains, nodes, and swellings of the lymphatic glands of the neck. But in ascribing those symptoms to mercury, we have entirely overlooked this obvious circumstance, that *that* medicine, when exhibited even to profusion for liver, or any disease which is not venereal, has never in any one instance produced those effects." p. 42.

The following conclusions introduce us, *in medias res*, to a knowledge of our author's views and doctrines :

"From an attentive consideration of a vast number of cases during many years, I find strong grounds for concluding—

"*First*—That the syphilitic chancre is attended by the scaly eruptions, lepra and psoriasis, an excavated ulcer of the tonsils, and pains and nodes of the bones.

"*Second*—That the simple ulcer, without induration, raised edges, or phagedenic surface,—gonorrhœa virulenta, and excoriation of the glans and prepuce, are followed by a papular eruption, which ends in desquamation, pains in the joints resembling those of rheumatism, soreness of the fauces, and frequently swelling of the lymphatic glands of the neck; but that in a vast number, not a single instance was observed, in which nodes were an attendant upon this eruption.

"*Third*—That the ulcer with elevated edges, in the few instances in which I had an opportunity of tracing it to its constitutional symptoms, was followed by a pustular eruption, which terminated in mild ulcers, pains in the joints, and ulcers in the throat, but no appearance of nodes; yet that the instances in which I had an opportunity of witnessing distinctly the connexion between the primary and secondary symptoms of this poison, were too few to form a decided conclusion with respect to this particular.

"*Fourth*—That the phagedenic and sloughing ulcers are generally attended by constitutional symptoms of peculiar obstinacy and malignancy, viz. pustular spots and tubercles, which formed ulcers that spread in general with a phagedenic edge, and heal from the centre; extensive ulceration of the fauces, particularly of the back of the pharynx, obstinate pains of the knees and other joints, while nodes are frequently present, and the bones of the nose are occasionally affected.

"*Fifth and last*—That, when an eruption, no matter what its character may be, is on a surface which is opposed by another, as on the fossa of the nates, upper part of the inside of the thighs, or in the axilla, the spots, if they do not ulcerate, extend into soft, moist elevations of the cutis, which ought to be treated according to the nature of the disease to which they belong. Thus, if they are syphilitic, with mercury; or, if papular, pustular, or tubercular, with the remedies recommended for the specific disorder. According to the established practice, these condylomatous swellings, as they are called, are universally treated with mercury; but I have, in innumerable instances, cured them, and the other symptoms with which they are accompanied, without the exhibition of a particle of that medicine." p. 49–51.

There is one important suggestion offered in the course of this chapter, which deserves attention. Previous to the appearance of Mr. Carmichael's work, all venereal eruptions were described under the vague terms of copper-coloured blotches, scabby spots, and other names equally vague and undefined. At present, the exact and classical nomenclature of Willan is generally adopted, and a more scientific and precise character given to the descriptions of the varying forms of the venereal.

In the treatment of primary ulcers, our author expresses his full conviction, from his own experience, no less than from that of others, that the true Hunterian chancre will heal without the aid of mercury. He adds, however, that its indolent character, and the slow dispersion of its callosity where mercury is not employed, induce in general to have recourse to that medicine. Such sores are, however, seldom met with; and for the other primary sores our author never uses mercury, except they are very obstinate, and then he administers it "with the same views of altering the action of the parts, as in cases of chronic ill-conditioned ulcers of the leg, or any other part of the body.'

In arranging the species of venereal diseases, Mr. Carmichael is guided entirely by the eruption, and on the peculiar character which these present, is the following division adopted: 1st, the Papular Venereal Disease; 2d, the Pustular ditto; 3d, the Phagedenic ditto; and, 4th and last, the Scaly ditto.

Chapter III. *The Papular Venereal Disease.* This is the most simple and least dangerous form of venereal disease, and it is also cured with the greatest ease. The primary symptoms are, according to our author, either first, a simple ulcer, without induration, elevated edges, or phagedena; secondly, a patchy excoriation of the glans and prepuce, attended with a discharge of pus; and, thirdly, gonorrhœa virulenta.

The primary ulcer first referred to, possesses, independently of the negative character pointed out, the following characteristic symptoms:—It exhibits a small pustule on the external prepuce or body of the penis, which lasts for one or two days;

it then forms a thin crust, which soon separates, and exposes an excavated round or oval ulcer with a surrounding redness. This fills up in the second week, rises above the skin, and presents a smooth surface, without granulations, and somewhat fungous in appearance. As soon as the sore puts on this fungous appearance, the process of ulceration ceases, and the surrounding redness disappears; the ulcer continues on an average from three to six weeks from its commencement.

These ulcers are most frequently formed on the glans and internal surface of the prepuce, and they generally excite phymosis. In women, they occur on the labia, perineum, and fossa of the nates.

When phymosis has taken place, it is difficult to ascertain from what source the purulent discharge proceeds, especially when the third symptom, or gonorrhœa, is conjoined with the second, as frequently happens. Indeed all the three affections may co-exist, and from this circumstance Mr. Carmichael deduces the conclusion of their arising all from the same poison. What further confirms this identity, is the fact observed by Whately, in his work on Gonorrhœa, and by Dr. Monro, that the lining membrane of the urethra is affected in gonorrhœa in like manner with the glans: "the discharge does not proceed in either case from the entire surface, but from irregular inflamed excoriated patches, leaving interstices of sound cuticle between them."

All these symptoms, viz. the primary ulcer, the excoriation of the glans and prepuce, and the gonorrhœa, are liable to be followed by a papular eruption, terminating in desquamation. Our author is aware that objections will be raised to the accuracy of this statement, in so far as gonorrhœa is concerned, and he thus anticipates them:

> "In support, however, of this position, I beg to state, that I have repeatedly seen men affected with this eruption who asserted positively, that they never had any primary symptoms, except gonorrhœa; and I have also, in numerous instances, seen women affected with the same eruption, who did not, on the minutest examination, exhibit any other primary symptoms than a gonorrhœa, and who asserted at the same time that they never had

primary sores. I at first doubted their veracity, or supposed that ulcers might have existed on the parts of generation, which had escaped their observation; but having met innumerable instances of the same eruption in persons affected with gonorrhœa, combined with a purulent discharge from the glans and prepuce, a little consideration led me to conclude that it was the same disease affecting different parts. This papular eruption, which is occasionally observed to follow gonorrhœa, furnished a strong support to those practitioners who adopted the opinion that gonorrhœa and chancre arise from the same poison. But the facts I have stated, and the analogies I have brought forward, will, I hope, dissipate at least some of the doubts and perplexities attending the subject, and, perhaps, set at rest this intricate and long disputed question." 71, 72.

The *constitutional* symptoms of the papular venereal disease are, more or less of fever, pain in the head, loins, shoulders, and larger joints; pain in the chest, with dyspnœa, followed by an eruption on the forehead, chest, and back, extending also in a scattered manner over the extremities. The fever does not subside on the breaking out of the eruption, but continues as long as fresh crops of the eruption continue to appear.

The *papulæ* are either of a pale red or a crimson colour, some of them simply pimples, while others approach the pustular form. The time of their appearance after infection is uncertain. They do not simultaneously appear, but follow each other in succession; so that on the same patient, some spots appear in their commencement like small pimples; others, which have arrived at maturity, form larger pimples, with acuminated tops, containing pus or lymph; while others, on their decline, consist of exfoliations of the cuticle. Thus, some will be pimples of a deep colour, and others, of longer standing, will be somewhat copper-coloured.

Sore throat is next noticed as a symptom of this affection. It is widely different from that which occurs in syphilis, in which there is a deep excavated ulceration of the tonsils, with little inflammation or difficulty of deglutition. In this form there is soreness, and the deglutition is difficult, and there is an erythematous appearance of the fauces.

The papulæ, after having wholly disappeared, will, in a few cases, re-appear again, and again each successive eruption becoming less, and causing less general derangement. If the disease has been treated with mercury in its early stages, it becomes more complicated and tedious. The last mentioned symptom is iritis, on which our author is pretty full.

Treatment of the Papular form. The remedies for the primary symptoms are very simple:—the strictest antiphlogistic regimen and diet; confinement to a recumbent position; cathartics and antimonials. The local applications to consist of any astringent wash or mild ointment. If the ulcers are obstinate, mercury in alterative doses will hasten the cure, on the same principle that it heals indolent ulcers of the legs. Dr. Emerson recommends the oxymuriate hydrargyri in doses of an eighth of a grain in both these cases. Mr. Carmichael is in the habit, however, of applying caustic freely to these ulcers, if he is applied to in the early stage, and then directing the patient to keep the ulcer constantly moistened with a solution of nitrate of silver, say three or four grains to an ounce of distilled water. In the second stage, a weaker solution of the nitrate, or the yellow and black washes, or if the ulcers are fungous, the daily application of sulphate of copper, will effect a cure. When the ulcers are on the external prepuce or body of the penis, ointments are most proper—the zinc ointment, either alone, or blended with a third or fourth of the nitrated mercurial ointment. When phymosis takes place, the usual means are directed; a recumbent position; warm water injected frequently between the glans and prepuce; poultices of bread and water to the entire penis, and the antimonial solution in nauseating doses. When the inflammation is violent, and the fever runs high, general bleeding must be had recourse to. Our author does not think local bleeding admissible in this case, as troublesome sores are apt to ensue. In more severe cases, where a part of the prepuce sloughs away, or where matter is formed under the ligament of the penis, a free incision of the dorsum penis longitudinally through the ligament, before ulceration takes place. If this be allowed to take place, the organization of the penis may be destroyed.

"In some instances the matter finds a passage at the corona glandis, and the probe introduced into this opening will pass under the ligament of the penis, often as far as the pubes, at the upper part of which sinus it will be necessary to make an opening; this will sometimes succeed, and the cavity will gradually close. In other instances, however, amendment will not follow this step; the openings will contract, notwithstanding every attention, so as to prevent the discharge from flowing off, and the confinement of the matter will occasion much pain, and an appearance of pointing on the dorsum penis between the two openings. These tedious, painful, and embarrassing circumstances may be prevented by the timely use of a seton passed from one opening to the other, which occasions a free exit to the matter. As the discharge diminishes, the threads of the seton may be gradually reduced, until it is withdrawn altogether; laying open the entire extent of the abscess with the knife is too severe an operation, and would probably, in the swollen and diseased state of the parts, be followed by sloughing of the ligament, and disorganization of the penis; enlarging the original openings in general only affords temporary relief. But in the mode of treating those cases by seton, I have, in many instances, perfectly succeeded in removing the disease, leaving the state of the parts uninjured." p. 98, 99.

Warts are treated by Mr. Carmichael in a manner peculiar to himself, by the application of acetic acid. One or two applications will suffice, and care must be taken not to injure the surrounding skin. Where the warts have narrow necks, however, the most expeditious mode is to cut them off with a scissors, and then apply lunar caustic to the wound.

The Patchy excoriation comes next to be treated of. This is the most easily cured of all venereal sores; any mild astringent lotion, injected five or six times daily between the glans and prepuce, sufficing. Our author prefers the yellow wash; but weak solutions of acetate of lead or sulphate of zinc will answer.

In the first stage of gonorrhœa, our author relies on antiphlogistic means—chiefly the antimonial solution. In the second stage, terebinthinates are recommended; and none more strongly than the balsam copaiba, in as large doses as the stomach can bear. If the discharge is obstinate, astringent injections, composed of half a grain to a grain of the oxymuriate of mercury in six or eight ounces of lime-water, or the common solution of sulphate of zinc. Mr. Carmichael does not countenance the opinion that these injections ever cause strictures, as insisted on by some.

Should buboes accompany these primary symptoms, the application of leeches and cold lotions, and attention to rest, are recommended. Mercurial frictions tend, according to Mr. C.'s experience, to increase the inflammatory tendency, and consequently the suppuration. If they are obstinate, blisters repeatedly applied are the best application. When they have suppurated, they should be allowed to break spontaneously, unless the pain is very severe.

The cure of the constitutional symptoms may be safely trusted to nature; but as it sometimes requires several months before they wear themselves out, it is best to have recourse to alterative doses of mercury. When the eruption is ushered in by much fever, the lancet should be freely employed, and the strict antiphlogistic plan pursued. Antimonials and sarsaparilla will then suffice for the cure. But if the eruption lingers, Mr. Carmichael directs pills of antimony and calomel,—the compound calomel pill of the London Pharmacopœia,[*]—in small doses, with the decoction of the woods. Quietude and rest are all-important; hence the rapidity with which hospital patients are cured.

Our author next indulges in some speculations to prove that the idea of Linnæus was correct, regarding the exanthematous nature of syphilis. The success of his treatment is the best argument adduced in its favour.

Iritis is treated by bleeding, cathartics, and *mercury.*

The chapter is closed with several cases, for which we regret we have not room.

An interesting supplement has been added by Dr. Emerson to this chapter, in which the treatment of strictures, swelled testicles, &c. is considered.

Chapter IV. *Pustular Venereal Disease.*

> "The primary ulcer of this disease is characterized by a reddish brown surface, which borders closely on the phagedenic character. Its edges are raised, and well defined. It is not excavated, but is either on a level with the surrounding skin, or considerably raised above it. At its commence-

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[*] For the satisfaction of those of our readers who are not acquainted with the form of this pill, we subjoin the following from Todd's Conspectus:—Hydrarg. Submur. Antimonii Sulphuret. præcip. āā ʒij.; Guiaci Gum. res. contritæ, ʒiv.: Spirit Rectif. ʒſs.—Dose, gr. v–x.

> ment it appears in the form of a small pustule, attended with itchiness of the part.
>
> "It may be distinguished from the primary ulcer of the papular disease, by its well defined and elevated edges, and also by the absence of the smooth fungous appearance which characterizes the second stage of that ulcer. From the phagedenic primary ulcer to be described in the next chapter, it may be distinguished by its well defined margin, and from the absence of the irregular and corroded-like surface of that ulcer, and also by its exemption from the painful and acute symptoms by which the phagedenic ulcer is characterized. It may also be distinguished from chancre by its want of the callous edge and base which always attend that ulcer. The ulcers of which we are treating, are most frequently found on the external surface of the prepuce, body of the penis, and occasionally on the scrotum, and occur from the size of the smallest pea, to that of a shilling. Of the former size they frequently form a circle round the orifice of the prepuce, and occasion, when the ulcers heal, a permanent phymosis, which can only be removed by the knife. They are, in general, of a chronic nature, and evince but little disposition to spread." 147, 8.

Mercury always does harm when used for the primary ulcer of this form, or for the bubo occasionally accompanying it. Perfect rest, gentle astringents, antimonials, and sarsaparilla, are all that is required.

Chapter V. *Phagedenic Venereal Disease.* This is a long chapter, not easily condensed into an analysis. We must, therefore, rest satisfied with a few extracts, such as will most pointedly designate to the reader the description of our author.

> "The phagedenic ulcer, as its name implies, has a corroded appearance and neither exhibits granulations, or surrounding induration. It spreads sometimes with rapidity, causing the most destructive havoc in the course of a few days; and in other instances creeps on slowly, healing in one part and making progress in another; but unlike a chancre, instead of being checked by mercury, it is almost always rendered more inveterate and rapid in its progress by that mineral. It more frequently attacks the glans penis than any other part; but the ulcer usually proceeds to affect the prepuce, which it often entirely consumes, and continuing its depredations on the corona and glans, at last effects their total destruction. When this event takes place, the ulceration usually receives a sudden and permanent check. At other times, a spontaneous hemorrhage, owing to the destruction of the coats of an artery, occasions a favourable change. The hemorrhage from this cause is often so profuse, that I have frequently found the patient's bed-clothes drenched in blood; and in many instances found it necessary to stop the hemorrhage by ligature. It is an occurrence, how-

ever, that is in general fortunate to the patient, for in those cases the ulceration is often stopped in its progress by this cause alone. More rarely it happens, that notwithstanding every anodyne, and lenient application, the ulceration will gradually proceed, until the entire penis is destroyed. There is also another characteristic of this ulcer worthy of remark, viz. the frequent return of ulceration, after the part has healed, to the very same spot which was at first affected." 162, 3.

Then follows the sloughing ulcer.

"The sloughing ulcer is still more untractable and destructive than the phagedenic: but the surgeon has seldom an opportunity of seeing its commencement, as the disease excites so little uneasiness at first, that, in general, its attack is unobserved even by the patient, until it has existed for several days. A small black spot that resembles a grain of shot in colour as well as in size, is its first appearance; which if seen by the experienced eye of a surgeon, even at this early period, will at once be recognised as a slough or mortification, extending to some depth below the surface. The slough will continue to increase sometimes to only three or four times its original extent, and at others until it engages a considerable portion of the penis, before a line of separation can be observed between the living and mortified parts. When the separation at length takes place, we do not find a clean granulating sore, as occurs in simple mortification; but a corroding phagedenic ulcer, which begins a new kind of depredation on the surrounding parts, equalling the virulence, but not the rapidity of the sloughing process, by which it was preceded.

"Suddenly those parts are attacked by severe pain, and afterwards assume a bluish cast, and on the following day they are found to be covered by a slough; and in this way this destructive malady continues to extend its ravages by alternate sloughing and ulceration, until in one sex the entire penis, scrotum, perineum and pubes are destroyed; and in the other, until the labia, nymphæ, vagina, anus, nates, and I believe even the bladder and uterus, are engaged in one extended and malignant state of putrefaction.

"But if the ulcer is fortunately stopped in its progress, and a portion only of the penis destroyed; the orifice of the urethra becomes so contracted in the new-formed cicatrix, that the urine passes with the greatest difficulty, unless the utmost care is taken to preserve the passage open during the healing of the ulcer." 163—165.

The constitutional symptoms of this form, are—first, an eruption of tubercles or pustules, which quickly degenerate into ulcers with thick crusts, that heal in the centre while they extend at the circumference with a phagedenic border; fever, nocturnal head-ache, accompany this eruption. Secondly.

ulceration of the throat, of a formidable character, commencing in the form of a small white aphthous sore, attacking the velum or posterior pharnyx. If not checked, it involves the whole pharynx, nares, and the bones of the nose. In some cases it has invaded the larynx and epiglottis, and then it proves speedily fatal. Thirdly, severe pains in the joints, knees, wrists, and ankles. Fourthly, nodes. These were only observed, however, in cases treated with mercury. There are other anomalous symptoms occasionally present, as swelling of the testes, &c.

Treatment. Absolute rest in a recumbent position ; venesection proportioned to the pain and fever ; nauseating doses of antimony, warm poultices of bread and water, fomentations, opium, hyoscyamus, and cicuta. When the irritation has subsided, the solution of nitrate of silver in the proportion of one, two, or three grains to one ounce of distilled water, or the black or yellow washes, will be proper. Spontaneous hæmorrhage, which sometimes is very profuse, will often give an immediate check to the disease. Hence Mr. Carmichael has been induced to procure a bleeding from the ulcer, by paring off the jagged superficies of the ulcer and holding the part afterwards in warm water, and success has generally followed.

Venice turpentine or balsam copaiba, blended with one or two parts of olive oil, are often extremely useful in the sloughing ulcer.

This ulcer, if not soon checked, destroys the entire penis, and frequently involves the scrotum. Hence, if a part of the penis is already destroyed, amputation must be had recourse to.

The treatment of the constitutional symptoms of this form is to be conducted on the same principles as that of the former ones, with especial modifications adapted to the peculiarities of the symptoms in this. Of these we shall now notice a few.

Where the cutaneous affection is characterised by tubercles, the nitrous acid is particularly useful. When the nights are disturbed by pains of the joints, the compound powder of ipecacuanha is recommended. If the pains are severe during the day, the powder may be given every sixth or eighth hour in conjunction with sarsaparilla.

Mercury should not be given till the disease is on the wane, as indicated by the subsidence of the fever, the healing of the constitutional ulcers, and the termination of recent tubercles or pustules into a scabby desquamation. Then mercury will no longer retard but hasten the cure. The muriate of mercury, or the compound calomel pill, in conjunction with the decoction of sarsaparilla, is the form preferred by our author.

Ulcerations of the Throat. When this affection is slight and not of great extent, local applications of oxymel æruginis, or a solution of the nitrate of silver, in the proportion of from six to ten grains in an ounce of water, or a solution of the oxymuriate of mercury—three to six grains in an ounce of distilled water should be made by means of lint on the end of a probe, or a large camel's hair pencil. If the ulceration is extensive and the uvula is destroyed, recourse should be immediately had to fumigations of the red sulphuret of mercury, employed every fourth or sixth hour, or fumigations of the hydrargyrus cum creta may be substituted. When the nose is affected, the same fumigations should be used, with the additional application, to the affected part, of a liniment or soft ointment composed of one part of the nitrated mercurial ointment to three of olive oil, by means of a camel's hair pencil. The nares should be injected frequently with yellow wash. If the ulceration continue obstinate, mercury must be given internally.

Where the larynx is affected, the case is pretty desperate. Our reliance is to be placed on counter-stimulants applied to the skin, and the internal exhibition of mercury. Blisters do not appear to be sufficiently active. Caustic issues over the thyroid cartilage have appeared to afford relief. If the disease goes on, tracheotomy must be performed.

The last symptoms to be treated of are, pains in the joints and nodes of the bones. The part most frequently affected is the knee-joint, in which the antiphlogistic treatment and local depletions must be made use of. Warm fomentations, blisters, and the tartarised antimonial ointment, are also useful. The last is particularly recommended. For nodes, pretty much the same treatment, with the addition of mercury, must be pursued.

Chapter VI. *Scaly Venereal Disease.* Mr. Carmichael considers the description by Hunter of chancre to be strictly applicable to the primary ulcer of this form. We shall not dwell, therefore, on his description of it. Neither shall the constitutional symptoms detain us, as they are pretty familiarly known. The treatment consists, according to our author, in exciting a strong mercurial action, "and to make the constitution feel and suffer under the debilitating effects of the mineral." On this passage Dr. Emerson very justly remarks, that as it is proved beyond a doubt that every variety of venereal may be readily cured without mercury, it appears useless to recommend the use of this article so unrestrictedly.

Among our author's remarks on mercury we find the curious fact related, that females are more easily affected by this medicine than males. On his first appointment to the Lock Hospital, he was accustomed to prescribe a drachm of mercurial ointment nightly for females as well as males. Experience taught him the impropriety of this course, and he reduced the dose, for females, to half the quantity. Mr. C. has also observed, that those who have been salivated several times, will be affected by incredibly small quantities of mercury.

The nitrous acid is recommended in cases of debility and œdematous affections of the legs from mercury.

Mr. Carmichael does not hesitate to admit, that even this form of venereal may be cured without mercury; but he thinks it still differs from the other forms, in being benefited in *all* its stages by the use of that medicine, whereas the others are injured by a too early recourse to it.

In the last chapter are considered some diseases most likely to be confounded with those of venereal origin—such as phlegmonous and erysipelatous inflammation of the penis, herpes preputialis, &c. &c.

We have now brought our extended analysis of this original and valuable work to a close. It deserves attentive perusal and study, and we may add, that the notes of the American Editor will be found not only interesting, but pregnant with useful practical information.

ART. II. *The Institutes and Practice of Surgery: being the outlines of a Course of Lectures.* By WILLIAM GIBSON, M. D. Professor of Surgery in the University of Pennsylvania, Surgeon and Clinical Lecturer to the Alms House Infirmary, &c. 2 vols. Philadelphia, 1825.

IN the preface to this work our author tells us, that it is intended as a *text* book for the use of the pupils attending his course of lectures. "I do not presume," says he, "to offer these 'outlines' to the experienced members of the profession. They are designed exclusively for those young friends in whose interest I take a lively concern, and from whom I have received so many tokens of kindness and respect." After this candid avowal in relation to the objects of this work, it would be ungenerous, and we may add unjust too, to subject it to the same severity of criticism with a work of higher pretensions and of more original character. All that can reasonably be expected, in a production of this kind, is that it should contain a summary of the most approved doctrines of the science of which it treats, expressed in language plain and perspicuous. Generally speaking, Dr. Gibson has accomplished all this in the work before us, in a manner quite creditable to himself and to the school to which he is attached; at the same time that he has occasionally thrown in the results of his own extensive experience, in confirmation of the doctrines which he inculcates. In our notice of the work, we shall endeavour to glean from it such parts as are not strictly elementary, or are peculiar to our author.

Chapter first, treats of inflammation generally and its consequences under the different heads of suppurative inflammation—ulcerative inflammation—mortification—chronic mortification, and dry mortification.

Chronic Mortification. This is the disease described by Pott as attacking "*the toes and feet.*" In this species of mortification a small bluish spot is first observed on the inside of one of the toes, from which the cuticle speedily separates. From this it gradually extends to the other toes, and from thence to the feet and legs. Sometimes all the toes are attacked at the same time. According to Pott, an uneasiness is generally felt at night in the ankle and foot previous to any discoloration. During the disease, in some cases, the pain is excruciating ; in others, there is none. Dr. Gibson alludes to three cases in which the patients were unconscious of the existence of the disease, until one or more of the toes were extensively affected. The progress and duration of the disease varies, being in some very rapid, and in others protracted. "When once the mortification is established, the patient's constitution sinks rapidly. He is very restless, cannot sleep, is often delirious, and complains of spasmodic twitches. The soft parts gradually separate, or are easily detached, and the bones drop from each other at the joints. The smell of the dead mass is often very offensive, and is sometimes complained of by the patient himself." In almost all the cases which Dr. Gibson has seen, death has taken place soon after the mortification reached as high as the ankle. This disease is more frequently met with among the old than the young, and males are said to be more liable to it than females.

The *causes* of this disease are not distinctly understood. The idea of its being the result of ossification of the arteries was originally suggested by Cowper. Subsequent observation has confirmed the fact, that such ossification is occasionally present; but Dr. Gibson thinks that the assertion of Hodgson, "that it is a constant attendant," remains yet to be proved. By Mr. Pott the disease was found chiefly in gouty subjects. In one of the cases which fell under the notice of our author, the disease appeared to have been occasioned by the lodgment of a needle beneath the nail of the great toe.

The patient's constitution had been previously much impaired by free living.

Our author's remarks upon the *treatment* of chronic mortification we quote entire.

"Formerly, bark was as much employed in this variety of mortification, as in any other form of the disease. It was condemned, however, by Mr. Pott, as useless, if not hurtful; and on this account is now seldom had recourse to. Instead of bark, Mr. Pott recommended opium, which he has praised in the highest terms. I have tried this medicine, however, repeatedly, both in small and in very large doses, and although I have found the pain and urgent symptoms sometimes relieved by its use, I cannot say that it has equalled the expectations held out by Mr. Pott in a single instance. A female patient, 35 years of age, in the Alms-House, last summer (1822) suffered for several weeks under this complaint. I commenced with moderate doses of opium, and gradually increased the quantity until she took five hundred drops of laudanum every twelve hours; yet little relief was experienced, and she died some weeks after in a dreadful condition. Bark also was given, both in substance and in the form of extract, without any advantage. Another woman, in the same Institution, whom I attended for the complaint, at the same time, was cured (with the exception of the loss of the greater part of the foot), I have reason to believe, by large doses of volatile alkali and by camphor, after opium had failed. Dr. Kirkland condemns the use of opium in large doses in this disease, and says that he has often known the mortification removed under the use of anodyne topics, when its internal use was discontinued, because it brought on delirium and took away the appetite. The same practitioner seems to depend, rather upon mild nutritious articles of food, than upon medicine, for the cure of this complaint.

"Various local applications may prove serviceable,—not in stopping the disease, but in relieving pain, and in keeping the parts moist and free from fœtor. Milk alone, or milk and water, moderately warm, and frequently applied, will be found very grateful to the patient's feelings. A bread and milk poultice I have used in several cases with advantage, where the carrot and turnip poultices gave pain. Dr. Dorsey states, "that in the only case he ever saw, the application of a blister produced an immediate termination of the mortification." In the worst of the Alms-House cases mortification followed the day after the blister was applied, and in a part apparently sound before its use;—in the other no benefit appeared to result, although the blister was applied repeatedly for several days. Blisters have been known to bring on mortification in other diseases, under particular circumstances, and however useful they may prove in common gangrene, I should not feel inclined, from what I have seen, to recommend them in chronic mortification. When the complaint occurs in people considerably advanced in age, I believe that all our efforts will prove unavailing. Amputation has sometimes been resorted to,—but generally without effect." 31—34.

Dry Mortification. This species of mortification differs from that just noticed. Without any previous swelling, redness, or pain, the toes and feet lose their heat, become shrivelled, discoloured, and finally converted into a hard, dry, insensible mass, of a dark blue or very black colour. In general, no sloughing takes place; on the contrary, each part retains its original form—the skin remains entire, and the nails adhere to the toes. To the touch the whole affected part feels cold, as hard as a common smoked tongue, and is perfectly free from fœtor. Such is the general course of this disease. In some cases, however, it commences with a burning sensation, and is accompanied with much pain. The fœtor and sloughing too occasionally are very great. Sometimes constitutional symptoms attend; most usually they are not present, and the disease continues its course until a line of separation is found. It seldom extends higher up than the knee.

The most common *cause* to which this disease is owing, is well known to be the use of *spurred rye*, or *ergot*. Dr. Gibson alludes to several interesting facts which have occurred in this country, in confirmation of the experiments made in France by M. Tessier, to show that this disease was induced in cattle by the use of the ergot. It sometimes, however, originates, according to our author, from other causes.

> "I have met with two or three examples of the genuine dry mortification in this country, neither of which, as far as could be determined, arose from the spurred rye. In one instance, the disease appeared to be the consequence of fracture—the patient at least had received a fracture of both thighs, and of the left leg, from which he recovered in four or five months. At the end of that time, a dark spot appeared on one of the toes of the right foot, spread from thence to the other toes, and finally involved the greater part of the leg, which became perfectly cold, insensible, dry, hard, withered, and of a deep purple colour. The skin remained entire, except at the upper part of the leg, where it sloughed, along with a portion of the muscles. In this condition the patient remained several months longer, without pain or material injury to his general health, when I was requested to visit him at York, Pennsylvania, in consultation with Dr. Spangler of that place. It was decided that amputation alone could afford relief. I accordingly performed the operation (on the 16th January, 1816,) immediately below the knee, and with complete success. Ever since that period

the limb has remained in my surgical cabinet, exposed constantly to the air, is now perfectly free from fœtor, as it was indeed at the time of the operation, and has never since undergone the slightest change. There is every reason to believe, in this case, that the mortification was the result of the different fractures, for upon repeated inquiries, no evidence was afforded that the patient had ever lived upon damaged grain of any description: on the contrary, he was a wealthy farmer, and had always used the most wholesome articles of food.

"The dry is not so fatal a disease as the chronic mortification. Where it has prevailed endemially, however, very few have recovered. In favourable cases, and in young subjects, amputation has often succeeded, and under any circumstances must be considered the only remedy."—38—40.

Chapter second, treats of the "varieties of inflammation," and under it are noticed, erysipelas—furunculus—anthrax—pernio—frost-bite, and burns.

Erysipelas. In the treatment of this disease, Dr. Gibson expresses a favourable opinion of *blisters*, and says, that although in numerous instances he has covered the inflamed part with a very large blister, yet he never has seen any troublesome sores follow their application. Of all the local applications our author, however, prefers the *mercurial ointment*, the use of which, in this disease, is a practice strictly American, and originated with Drs. Little and Dean of Chambersburg, Pennsylvania. In relation to the preparation of this ointment, we are furnished with the following important practical suggestion.

"A practice very commonly prevails, in the preparation of this medicine, of mixing with it turpentine and other stimulating ingredients. The ointment, thus prepared, if used in erysipelatous inflammation, will increase rather than alleviate the disease; but when divested of such materials, speedily relieves every urgent symptom, especially in that troublesome form of the complaint which so frequently attacks the face." 45.

In relation to the use of starch, flour, chalk, &c. &c. as external applications, we agree with Dr. G. in condemning them, as generally useless and not unfrequently injurious, "by mixing with the fluids discharged from the vesications, and forming crusts or scabs, which irritate the subjacent skin."

Anthrax. In the commencement of this inflammation Dr. G. recommends a poultice as the best application. When openings form and the discharge commences, he advises Dr. Physick's practice of applying the caustic vegetable alkali.

"The caustic gives some pain, but this soon subsides, and the severe burning pain, peculiar to the disease, is from that time entirely removed. Dr. Physick, to whom we are chiefly indebted for our knowledge of the proper application of this remedy, states, that 'in all the cases in which he has used the caustic in this manner, the suffering of the patient ceased as soon as the pain from the caustic subsided.' It should be recollected then, that the caustic will prove hurtful in the commencement of carbuncle, but extremely beneficial in the second stage, or at that period when openings form in the tumour. From inattention to these circumstances, there is reason to believe much mischief has resulted—from deep ill-timed incisions, from the actual cautery, and from caustics, which have long been employed, at an improper period, especially by the French surgeons." 52.

Chapter third, is devoted to the subject of wounds. They are divided into incised—punctured—penetrating—contused—lacerated—poisoned, and gunshot. The whole of this chapter is satisfactory, and the section relating to poisoned wounds, contains an interesting detail of facts concerning various animal poisons. We have only room for the remarks upon the effects of the wounds from the two American serpents, the *Rattlesnake* and the *Copperhead.*

"Of the numerous American serpents two species only are known to be venomous—the *rattlesnake* and *copperhead.* Eight species of the former have long been familiar to naturalists, and two others have been discovered lately by Humboldt* and Bonpland. All are poisonous, but in particular the *crotalus durissus, horridus,* and *miliarius.* The copperhead, (*boa crotaloides,*) sometimes called the bastard rattlesnake, is also exceedingly malignant. All these reptiles are furnished with long teeth, or poisonous fangs, the roots of which are surrounded by a bag or reservoir containing an active and virulent poison. This poison is discharged into the wound through a small fissure of the tooth situated near its extremity, and in many instances very quickly proves fatal both to man and to the inferior animals. As regards the effects of the poison, much will depend upon the size of the animal bitten—death being produced more readily in the smaller than in the larger animals. According to the experiments of Vosmaer, sparrows, finches, and other small birds, died in about four minutes, while a mouse died in a minute and a half. The deleterious operation of the poison will also depend materially upon its quantity, and upon the season of the year at which the wound is inflicted. To ascertain the effect of the bite of the rattlesnake, several experiments were made by Captain Hall of Carolina, upon dogs, cats, chickens, and frogs. Three dogs were bitten in succession by a snake four feet long. The first died in less than a quarter of a minute, the second in two hours, and the third in three hours. Four days after, two other dogs were bitten: one of which died in half a minute, the other in four minutes. Several experiments, nearly similar, were made by the late Professor Barton on chickens. Of three chickens bitten, on three days successively, one died in a few hours, another lived much longer, and the third recovered after having been exceedingly swelled. On the fourth day, several other chickens were bitten, but recovered without a bad symptom.

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* These are the *Crotalus Cumanensis* and the *Crotalus Lœflingii.* See Recueil d'Observations de Zoologie et Anatomie Comparee, 4to.

"The rattlesnake is more lively, and its venom more active, during very warm weather than at any other period: upon the approach of the cold season, it becomes languid, and then strikes reluctantly, and frequently without any ill consequence. The effects produced by the poison either on the human body or on the lower animals, vary according to the parts wounded, the depth to which the fang penetrates, and the quantity and strength of the venom in the reservoir. In many instances death follows in a few seconds or minutes, and in others not until many days or weeks. The interesting case detailed by Mr. Home, which I witnessed whilst a student in London, furnishes striking proof of the speedy operation of the poison of the rattlesnake, and at the same time affords incontestable evidence that it may remain a long time in the system before death is produced The patient was teasing a large rattlesnake with the end of a foot rule, but could not induce the animal to strike; the rule accidentally dropping from his hand, he opened the door of the cage to take it out; the snake immediately darted at the hand, and inflicted four wounds—two on the back part of the first phalanx of the thumb, and two on the side of the second joint of the forefinger. The hand soon after began to swell, and in the course of ten or eleven hours the whole arm, axilla, and shoulder were very much tumefied and cold. There was an unusual coldness also throughout the skin of the whole body. At this period the mind of the patient was perfectly collected; but immediately after the accident he talked incoherently, owing probably to strong drink, which it was ascertained he had taken before he was bitten. From the axilla the swelling extended down the side, and blood was extravasated under the skin as far as the loins, giving the back a mottled appearance. The skin over the whole body became warm, faintings occurred repeatedly, vesications appeared in different parts of the body, a large abscess formed on the outside of the elbow and discharged half a pint of reddish matter; mortification took place in the axilla, in the forefinger and some other parts, and finally destroyed the patient, after he had laboured for eighteen days under the most distressing symptoms. Upon dissection the body presented a natural appearance (with the exception of the arm that had been bitten), and the wounds made by the fangs of the reptile had healed.

"Instances have occurred, both among the Indians and among the white people, who inhabit the mountainous and thinly settled parts of our country, of almost instantaneous death from the bite of the rattlesnake. On the other hand, it is very certain that many persons wounded by this animal have sustained very trivial if any injury. In such cases, it is probable that the teeth enter obliquely and do not penetrate the true skin, or that the reservoirs at the roots of the fangs have been empty, or the virus itself, owing to particular circumstances, so modified or changed in its properties, or in such small quantity, as not to produce fatal effects. Again,—where death has followed almost immediately or shortly after the wound, the poisonous fangs have probably penetrated directly a considerable artery or vein, and conveyed the noxious matter at once into the circulation. According to Catesby, the Indians very soon ascertain when this has happened, and apply no remedy, under an impression that the wound is necessarily fatal. Upon these principles it will be easy to account for the supposed good effects of the numerous and diversified remedies, at different times proposed for the cure of the bite of the rattlesnake; inasmuch as there is reason to believe that nature, unassisted, is often sufficient to accomplish a cure, or that a sufficient quantity of virus has not been inserted to produce death.

"The poison of the rattlesnake is of a yellow colour, tinged with green; during extreme heat, and particularly in the procreating season, it becomes of a much darker hue. The *copper-head* is equally poisonous with the rattlesnake, but few experiments have been made to ascertain its peculiar characters." 103—109.

Wounds of the Joints. In the short, though instructive chapter on this subject, we notice, as important, the following suggestion in relation to the treatment.

"But besides the treatment pointed out, there is one auxiliary, not yet mentioned, of immense value, especially in the early stage of all inflamed joints—*position.* If the knee is wounded, for example, the limb should be extended, and at the same time *considerably elevated*, in order to drain the blood from it as much as possible and thereby lessen the inflammation. For this purpose pillows, or an inclined plane well covered with quilts, are placed beneath it; or what generally answers a better end, the foot of the bedstead is raised by blocks to the necessary height. Nothing can be more fectual than this simple plan in all injured or diseased joints, and for a owledge of it the profession is chiefly indebted to Dr. Physick. The is kept *extended*, in order that it may prove more useful to the pa- in case anchylosis should ensue. A contrary position ought, however, to be assumed in wounds of the elbow joint, and for obvious reasons." 195, 196.

Chapter fourth, embraces the consideration of abscesses in particular parts of the body: as abscess of the antrum maxillare—mammary abscess—hepatic abscess—lumbar abscess—femoral abscess—paronychia, or whitlow.

Mammary Abscess. A variety of this abscess, particularly noticed by Hey, has fallen two or three times under the notice of Dr. Gibson, and is thus described:

"It begins like the common mammary abscess, but verges with less rapidity towards suppuration. The matter is often discharged from several openings, and these openings become fistulous and lead to narrow sinuses, which wind in every direction among the cellular membrane and glands of the breast. These sinuses, when opened, are found nearly filled with a soft purple fungus. The disease may last for a very long time, and indeed there is reason to believe will never get well spontaneously, but gradually continue to grow worse until the patient's constitution is worn out by hectic." 205, 206.

In this abscess "it is recommended to lay open each sinus completely; without which, it is stated, a cure cannot be accomplished. If I may judge from the result of two very extensive and obstinate cases of the disease, which fell under my care a few years since, this severe proceeding may be dispensed with, and a *seton* substituted in its stead. Both patients recovered under this treatment in a very short time. A separate seton was placed in each sinus." 207.

Lumbar Abscess. In relation to this affection our author makes the interesting observation, that it is rarely met with in the United States. In confirmation of this remark, he states, that only four cases of it have come under his notice during the last thirteen years, although he has been professionally connected with extensive hospitals and alms-houses during the greater part of that time. In Great Britain on the contrary, he adds, the complaint is so frequent, that it is hardly possible to pass through the wards of any common infirmary without meeting with several cases. Dr. Physick never met with a case of it in America unconnected with disease of the spine.

Paronychia. Dr. Perkin, of Philadelphia, has met w
great success in the management of this troublesome a

tion, by a mixture of equal parts of corrosive sublimate and white vitriol, applied to the part on lint steeped in tincture of myrrh, and suffered to remain for several days.

For the removal of that species of whitlow denominated by Mr. Wardrop *onychia maligna*, Dr. Gibson says, that "Mr. Wardrop recommends the evulsion of the nail and subsequent application of caustic." Although Dr. Gibson refers to the paper of Mr. Wardrop on this subject, we should judge that he had not read it very carefully. Mr. Wardrop recommends the internal administration of mercury carried to an extent sufficient to affect the gums. Our own experience confirms the efficacy of this treatment.

Chapter fifth, contains a condensed view of the subject of ulcers. The following observations, with which the chapter opens, are so judicious, that we are tempted to quote them entire.

> "There is no class of surgical diseases in which the student should feel a more lively interest than that of ulcers—both in a pathological and practical point of view. In the one case, he has fair opportunity to speculate upon the important processes of animal decay and reparation; in the other, to exert his utmost ingenuity to overcome difficulties which the best surgeons in every age have felt and acknowledged—the obstinate, and oftentimes intractable, nature of the complaint. Strange as it may appear, however, so little attention is paid by most students to this department of surgery, that it is hardly possible for the prescribing surgeons, or clinical lecturers, in the Philadelphia Alms-House, (one of the finest establishments perhaps in the world, as regards the number of patients and the variety of disease) to interest a class by any observations they may make on the subject, or by any cases they can exhibit. But this feeling, amounting almost to prejudice and disgust, is not peculiar to the members of the profession in this country; it is noticed and complained of every where, and arises doubtless from the loathsome condition in which ulcers are generally found—such diseases being most common among the lower orders of people, especially the intemperate and filthy. There is another reason too, I am convinced, which has had great influence in preventing that attention to ulcers they deserve—the unsatisfactory, complicated, and adverse distinctions made by almost every writer. This is so conspicuously the case, that the student can hardly take up any common treatise on the subject without finding himself immediately involved in a labyrinth of perplexities; and if he proceed so far as to understand, as he supposes, the views of the writer, and attempts to apply them to practice, all his conceptions vanish in a moment, and he only knows that there is an ulcer before him, without being

able to say to what class or species it belongs. This confusion, it appears to me, has arisen from the numerous appellations given by authors to ulcers of the same character, and from very trifling and oftentimes accidental varieties being dignified with the name of *species*. Thus the *simple purulent* ulcer, and the *simple vitiated* ulcer of Mr. Benjamin Bell, are the *healthy* and *irritable* ulcers of Mr. Home. Again—what Mr. Home describes *as an* "*ulcer in parts too weak to carry on the actions necessary for its recovery*," is called by Mr. Burns the *overacting* ulcer, and by common writers the *fungous* ulcer. The name of *inflamed* ulcer has sometimes been substituted for *irritable* ulcer, and *callous* ulcer for that of *indolent* ulcer.—These contrarieties, however, are pardonable and unimportant compared with others which have been adopted almost universally—such as the *sinuous* ulcer, the *carious* ulcer, the *fungous* ulcer, the *sloughing* ulcer. These, it must be evident to any practitioner much accustomed to the treatment of ulcers, are accidental symptoms merely, or at farthest, variations which are not peculiar to any particular species, but may accompany or follow all." 228—230.

To obviate these objections, Dr. Gibson divides ulcers into three classes—*healthy*, *unhealthy*, and *specific* ulcers. The first comprehends only one species, which is called the *simple* ulcer. The second contains two species—the *irritable* and *indolent* ulcer. The third embraces ulcers from specific diseases, such as scrofula, cancer, fungus hæmatodes, and syphilis; also, the syphiloid, scorbutic, herpetic, and contagious ulcer, usually denominated hospital gangrene.

Want of room compels us to close, for the present, our analytical notice of Dr. Gibson's work. We shall conclude it in our next.

QUARTERLY HISTORY

OF

IMPROVEMENTS IN MEDICINE AND SURGERY.

Foreign.

ANATOMY AND PHYSIOLOGY.

Lachrymal Nerve.—It is stated in the Medical Repository, on the authority of a private letter from Paris, that M. Amusat has discovered the lachrymal nerve to be a branch of the pathetic, or fourth pair, and not, as has been hitherto supposed, of the ophthalmic portion of the fifth. It is stated also, that Richerand confirmed the fact. If this turns out to be true, it will be extremely interesting when taken in connexion with the late splendid discoveries of Mr. Charles Bell.—*Anderson's Med. Journal.*

Dr. Meyer on Chyle in the Veins of the Jejunum.—The author, who is a Professor in the University of Bonn, gives the following singular case:

" A robust man, about seventy-nine years of age, died suddenly in consequence of asthma; and his body was taken to the dissecting-room. This man had been healthy from his youth: he had never suffered from any severe illness; only, in the course of long military service, he had experienced some cutaneous affections, particularly the itch. He was a great brandy drinker. About six months before his death, he had complained of his chest, of palpitations of the heart, of jaundice, with symptoms of dropsy; but, by proper remedies, he was so much recovered as to return to his usual habits. At the end of three months, his dropsical symptoms returned, with a purulent expectoration, and œdematous feet. He again became a little better; but shortly afterwards he suddenly felt violent darting pains in the chest, with violent cough, and other symptoms of inflammation of the lungs. He was bled, and the blood exhibited the buffy coat. He felt relieved the following day; but, a few hours after having taken some soup, he died suddenly.

" The examination of the body showed the following particulars:—A great quantity of serum in the chest, as well as in the pericardium; the lungs adhering to the parietes of the thorax, and full of tubercles, with small cysts containing pus. There was no remarkable alteration in the viscera of the abdomen. The intestines were then taken out, and preserved for the purpose of demonstration. When the different portions of them were submitted to especial examination, on the small intestines vessels of a greyish white were perceived, a little inclining to yellow in some parts, and equally visible on the internal surface of the canal as on the outside. At first they were taken for lymphatics; but a closer examination proved them to be veins. The lower third of the duodenum, the entire jejunum, and a portion of the ileum, were spread over with similar venous ramifications, containing a liquor analogous to cheese: nevertheless, this liquor only existed in the minute ramifications upon the surface of the intestines; but, at the spot where the mesentery is inserted, the venous trunks to which these smaller vessels conducted, contained only common blood. Upon many points might be seen, with the naked eye, the little roots of the white veins advanced to the edge of the valves of Kerking; and it appeared to the Doctor that, pressing lightly, he drove the white liquor contained in the venous branches to the surface of the mucous membrane. The small intestines were full of chyme. No lymphatic filled with chyle was to be found. Unfortunately, the other abdominal organs were not in a state to permit of examination.

" It is not to be doubted, continues Dr. Meyer, that the greyish liquor, which was contained in the smallest branches of the veins, was truly chyle, the colour and consistence of which are in general relative to the quantity of chyme. But it may be asked, how did it happen that the lymphatic vessels contained no chyle, since the patient appeared to have died in the moment of chylification? Circumstances do not permit him to resolve this question; but he conjectures that the venous system may have outlived the lymphatic. Perhaps the right side of the heart had outlived the left; in this case, there would have been a prolonged diastole and systole of the right ventricle, which might have determined the absorption of the chyle by the smaller venous branches of the small intestine. The appearance of the heart rather corroborated this hypothesis."—*Ib.*

THEORY AND PRACTICE OF PHYSIC.

[We commence publishing in our present Number, a paper containing the results of the long and ample experience of one of the most distinguished Medical men of the age, the late Dr. Baillie of London. Our readers, we do not doubt, will concur with us in considering it a rich legacy bequeathed to our profession by its estimable author.—Ed.]

Some brief Observations drawn from my own Experience upon a considerable number of Diseases.

I have now practised as a physician for more than thirty years, and have, for the greater part of that time, been so much occupied with visiting patients, that I have seldom been able to write notes of individual cases. It has occurred to me, however, that some advantage might be derived from my leaving a short record of the results of my experience in a considerable number of diseases.

I am convinced that the most successful treatment of patients will depend upon the exertion of sagacity or good common sense, guided by a competent professional knowledge; and not by following strictly the rules of practice laid down in books, even by men of the greatest talent and experience It is very seldom that diseases are found pure and unmixed, as they are commonly described by authors; and there is almost an endless variety of constitutions. The treatment must be adapted to this mixture and variety, in order to be as successful as circumstances will permit; and this allows of a very wide field for the exercise of good common sense on the part of the physician. A physician who should be guided strictly by the rules laid down in books, would be a very bad practitioner. In the following short observations on the treatment of various diseases, I shall state impartially the result of my experience, without entering into any speculative reasoning, which is often very fallacious.—*Hanger Hill*, *July* 22, 1819.

Complaints of the Head.

Many persons of both sexes are affected daily with headaches, of more or less severity, for many months, and often for some years. They chiefly prevail towards the middle time of life, but occur often at an earlier period. They may take place in any part of the head, but are more commonly felt in the forehead, or over one eye, or in the back part of the head. Such headaches I have found in general to be very little benefited by bleeding, either general or topical. In the accounts which patients have given me of the effect of this remedy, they have said that they have either received from it no benefit at all, or that it has lasted but a few hours; or that the headaches have even been worse after cupping, or the application of leeches. I have generally found such headaches to be most benefited by temperate living, great attention to avoid improper diet, purgative medicines, and bitters. The best common medicine is rhubarb and soap, in such doses to give two motions daily. A few grains of calomel, with an aperient draught, such as an infusion of senna with a drachm or two of Epsom salts given occasionally—as, for instance, once in a fortnight or three weeks—are sometimes of much use. A due degree of exercise taken daily, both on foot and on horseback, is likewise in some cases very serviceable. Some headaches I have known relieved by nervous medicines, but not frequently. In some cases this complaint is relieved by no plan of medicine or management whatever, but will gradually, after some months or years, subside. The seat of such headaches is, I believe, in the scalp, and not in the inside of the cranium. They depend chiefly for their cause upon the state of the stomach and bowels, or upon an irritable state of some of the nerves of the scalp. In most headaches of severity, it is right to make one or two trials of the effect of topical bleeding; but not to persevere in the repetition of this measure for many months, as is often done, even though it produce no benefit.

The cutting the hair of the scalp very short, and the application of cold, large sponge wrung out of cold water and applied to the upper part e head, will often give great temporary relief when the skin has been sly hot.

Apoplexy.—This disease, in its most severe form, depends commonly upon blood being poured out into the substance of the brain from some ruptured blood-vessel. This generally takes place in the medullary substance, near one of the lateral ventricles, but it may occur in any part of the brain. The milder forms of apoplexy depend upon a distention of some of the vessels of the brain, from an undue accumulation of blood in them. I have known, however, one instance of fatal apoplexy, where many of the blood-vessels were found, upon examination after death, to be much distended with blood, but no blood had been extravasated in any part of the brain.

The chief remedy in apoplexy is large bleeding, to be repeated according to circumstances. Topical bleeding by cupping and leeches is likewise often of use. The next remedies in importance, are purgative medicines of considerable power, and acrid glysters. The head should be kept high or elevated, and cold may be applied with advantage to the top of the head. If the patient should recover by these means, the best plan of management, in order to escape from another attack, is to live almost entirely throughout future life upon vegetable food, and to abstain from wine, spirits, and malt liquor. It will be of considerable advantage to avoid any strong or long-continued exertion of the mind. In a few instances, when the full state of the vessels of the brain had for some time subsided, I have derived considerable advantage from the moderate use of tonic medicines, and more especially of steel.

Hydrocephalus.—I have known in my own experience but one instance of this disease being cured, when fully formed. In this case all the symptoms were well marked, and the disease had made such progress that squinting and an irregular pulse had taken place. There had been no peculiar treatment, except that mercurial ointment was applied daily to a considerable sore on the upper part of the head, which had been produced there by a blister. The individual is now alive, and is a young lady of good talents, which she has highly cultivated.

I have seen a few cases in which there appeared to be a strong threatening of hydrocephalus, that got well by the application of leeches and blisters to the head, and brisk mercurial purges; but I cannot determine whether these cases, if less actively treated, would have terminated in true hydrocephalus or not.

Epilepsy.—This disease appears to me to have become much more frequent within the last twenty years than formerly. If this remark be generally true, it may perhaps be accounted for by the progress of luxury, which must render the nervous system more irritable. I have known very few instances of epilepsy radically cured; but a considerable number of cases in which the intervals between the attacks have been rendered much longer. The medicines which have appeared to me to have most influen in removing or retarding the attacks of epilepsy, have been the arger nitratum, viscus quercinus, and the oleum succini. Of these, the f the most powerful: but, when it has been used for a good many m tinges the skin of some individuals of a dark colour. I have known two instances of this effect from it in my own experience. The bowels, too, should always be kept open, and the effect of brisk purgatives should be tried in the beginning of the disease.

It is of great use, in the treatment of epilepsy, that the patient should live very temperately, and should avoid every thing which may tend suddenly to excite or to harass the mind. Patients should eat animal food sparingly, and should abstain from wine, ale, and porter altogether. The hair should be cut short, and cold applications should be applied to the head whenever the skin of it feels hot. This management is often of much use in rendering the attacks both less frequent and less violent. The causes producing epilepsy are various; but I believe that in this disease, there is constantly a tendency to a greater accumulation of blood than is natural in the vessels of the brain.

The Tic Douloureux.—The tic douloureux seems to me likewise to have become more common of late years, and I think it is more frequent among men than women. I do not recollect to have seen any instance in which it has been permanently cured, either by internal medicines or by an operation. I have known some instances of its being cured for a time (that is, for several months, or even a year,) by medicines; and those which have appeared to me of most use, are Peruvian bark and arsenic. The operation of dividing the nerve, has in some instances prevented a return of the disease for one or two years, but has not, as far as I know, prevented it permanently. The courage and patience under suffering in this complaint, displayed by some individuals, have been truly astonishing.

Of some Diseases of the Neck.

The most common disease in the neck, is the swelling of one or more lymphatic glands. This is most apt to take place in young persons who have fair complexions and delicate constitutions. It is always a very tedious disease, and is seldom much benefited by medicine. The remedies which I have found of most use, have been sarsaparilla combined with soda, Peruvian bark combined with soda, and some form of steel. These medicines will, however, often have but a very imperfect influence upon the complaint. Sea air and tepid sea-water bathing are often beneficial; but I think that the air and waters of Malvern are more useful than any other remedy. I have known a good many cases which had been but little improved by the common remedies, and by a residence upon the sea-coast, with all its advantages, which have afterwards got quite well by the patient's residing three or four months at Malvern.

Bronchocele.—This disease is not very uncommon in this country: it is more frequent among women than men, and much more so among young than old persons. It is not often much benefited by medicine, but will frequently disappear of itself. Sometimes the swelling grows, even in this country, to an enormous size; and I have known one or two cases in which the patient was destroyed by the swelling compressing the trachea and the œsophagus. The medicines which I have found of most use have been burnt sponge, soda, and mercury, used externally, either as an ointment or in the form of plaster.

Chronic Inflammation of the Larynx and Trachea.—This disease occurs frequently in this country, and, upon the whole, I think is more common among men than women. It is often confined to the inner membrane of the larynx and the upper part of the trachea; but frequently it spreads downwards, even to the inner membrane of the bronchia. This disease always continues several months, and often, with short intervals of amendment, for years. Not unfrequently it lays the foundation of future phthisis. Remedies generally produce only a very gradual influence upon the disease, and sometimes none at all. Benefit is not unfrequently derived in some degree from the repeated application, at short intervals, of leeches to the fore-part of the neck, or the skin covering the upper bone of the sternum. The frequent application of small blisters to the same parts will occasionally be of use; but perhaps the most useful remedy is a small seton inserted under the skin of the side of the neck, very near the larynx. Internal medicines often produce very little good effect; but the medicine which I have found, upon the whole, to be the most beneficial, has been the extractum conii. I have sometimes directed five grains of it to be taken three times a-day for many weeks together, with manifest advantage.

Of the Quinsy.—I have but one observation to make with regard to this disease, which is of some little importance. It is usual to endeavour, throughout the course of it, to prevent suppuration from taking place, by the repeated application of leeches under the angles of the lower jaw. It is certainly very desirable that suppuration should be prevented, and that inflammation of the tonsils should gradually subside by resolution. I have found, however, by experience, that suppuration is by such means very often not prevented, but only that inflammation proceeds more slowly to this issue. Hence the patient suffers for a considerably longer time; and the suffering in this disease is often very great. If, therefore, one or two applications of leeches do not lessen materially the inflammation of the tonsils and velum pendulum palati, I should recommend the progress of the inflammation to be encouraged by the inhaling of warm vapour into the mouth, and the application of poultices to the external fauces. In this way the disease will go through its progress more quickly, and the patient will suffer much less.

Of some Diseases of the Chest.

I have very little to say either with respect to pleurisy or peripneumony. The earlier, after inflammation has taken place in the pleura or in the lungs, that blood is taken away from the arm, the sooner will the disease be subdued. Blood should in these diseases be taken away largely, and, if necessary, should be repeated again and again after short intervals. All other remedies are insignificant in comparison of the abstraction of blood from the system.

When this remedy has not been applied early enough, nor in sufficient quantity, and an abscess has been formed in the lungs, which has burst, patients have, in the greater number of instances that I have seen, recovered but very slowly. Under these circumstances, the medical attendant has little to do but avoid mischief. The constitution should be moderately supported, without being too much stimulated. Moderate doses of myrrh, decoction of bark, or infusion of some bitter, are sometimes of use. Light animal diet, and even a little wine, are sometimes useful in such cases; but great care should be taken that no new inflammation be excited.

In the course of my experience throughout many years, I have known a few instances of abscess being formed in the lungs, without any previous pain in the chest, or difficulty of breathing, or observable fever. Such patients, upon some exertion of the body, or even without any exertion, have suddenly coughed up a considerable quantity (perhaps half a pint or more) of pus; and this has been to the patient the first intimation of disease. In such cases the inflammation of the lungs must have proceeded so slowly as to have produced little or no pain in the chest, and not to have alarmed the constitution so as to excite fever.

Of Phthisis Pulmonalis.—In the course of my medical experience, I have known one or two cases of patients who recovered from phthisis which was apparently fully formed. It is probable, however, that with regard to these cases I may have been mistaken; and that, if I had inquired with sufficient accuracy into their history, I should have found that they were small abscesses of the lungs, of a common, and not of a strumous nature.

I have known a good many instances in which persons threatened with consumption have recovered by going into mild climates, or even into Devonshire or Cornwall; but I do not recollect a single instance in which they recovered when the disease had decidedly been formed. Change of air should be adopted very early, in order to give it the best chance of success. Such a variety of accounts have been given by patients, and even by medical gentlemen, of the comparative advantage of one place over another abroad, that I have found it impossible to decide which is to be preferred. I am disposed, however, to think that Madeira, the Hyeres, some parts of Portugal, Malaga, Nice, and Naples, are the best. It is very possible that different places may suit better with the constitutions of different individuals; and this conjecture, if well founded, may explain the cause of there being such a variety of opinions upon this subject. A patient should, if possible, spend two or three successive winters abroad, in order to give the best chance of the disposition to the disease being subdued.

When no active inflammation is going on in the chest in phthisis, I have sometimes found advantage from patients being allowed to take a little white fish or light animal food at dinner. In a very few instances I have found benefit derived from their taking one, or even two, glasses of wine, diluted with water, after dinner; but wine is generally improper.

I have known of no medicine which has been of permanent and substantial use in phthisis; but I have sometimes found a good deal of temporary advantage derived from myrrh, from ammonia, and from light bitters united to the acetic acid. The frequent repetition of blisters, or a seton inserted under the skin in some part of the chest, are occasionally of considerable use.

Of Hydrothorax.—When dropsy of the chest does not depend upon any diseased structure of the heart or lungs, I have found it much more readily affected by medicine than ascites or dropsy of the ovarium. Not unfrequently, under these circumstances, I have known water of the chest relieved, or for a time cured, by medicine.

The medicine which I have found most beneficial, has been mercury combined with squills and digitalis. Five grains of the pilula hydrargyri, combined with one grain of the dried powder of squills, and half a grain of the dried powder of digitalis, given twice or thrice a-day, have, in many cases under my care, either very much mitigated, or for a time removed the disease. There has been some advantage from the mercury affecting slightly the salivary glands. Squills and digitalis are by themselves much less efficacious than when combined with mercury.

I do not recollect one instance of hydrothorax being permanently cured, although I remember a good many cases in which the symptoms were repeatedly removed by the same means in the same patient.

Where the difficulty of breathing has been very great, and the legs and thighs have been much swelled from anasarca, I have known much relief afforded by a scarificator and small cupping-glass being applied above the inner and outer ankle of each leg; and I do not remember any mortification attacking these small sores. The difficulty of breathing in such cases probably depended in part upon the water accumulated in the cellular membrane of some parts within the chest, and this was gradually emptied through the small openings made in the skin of the legs.

Of Palpitation of the Heart.

Palpitation of the heart may take place at any period of life; but it is more common at an early period than any other—as, for instance, from fifteen to twenty-five years of age. Perhaps, too, it may be more common in females than in males; but of this I am not very certain. At an early period of life, it does not in general depend upon any diseased structure of the heart, but either on a morbid irritability of the nerves of this organ, or upon some imperfect state of digestion. When it takes place from either of these causes, it always continues for a long time, (often, more or less, for two or three years,) but at length generally subsides. Rest of body and quietness of mind are two of the chief means which contribute to remove this disease. All quick motion of the body, and more especially walking up ascents, increases the complaint, and should as much as possible be avoided. Every thing which tends to excite or harass the mind has the same effect, and should be shunned whenever it is possible. To rest of body and mind should be joined very temperate diet: and, when this general plan of management has been continued for many months, or perhaps for a year or two, the disease usually subsides. Digitalis has sometimes been useful in mitigating this complaint, but frequently it produces no good effect.

Where the palpitation depends, either altogether or chiefly, upon the state of the stomach, it is gradually removed by temperance, by improving the condition of the stomach, and by keeping the bowels free from costiveness. I remember one case in which palpitation of the heart had taken place, and had continued for six months, in consequence of gout having attacked this organ. In this case the palpitation ceased suddenly and entirely when the gout attacked one of the feet in a full and decided form. This person is now alive, and has continued generally in good health, although it be nearly twenty years since the attack of palpitation.

In young persons, palpitation depends upon an enlargement of the several cavities of the heart, produced not unfrequently by rheumatism attacking this organ. This cause of enlargement of the heart was overlooked by the physicians of this country, till it was discovered by the sagacity of my esteemed friend, the late Dr. David Pitcairn. The enlargement, in general, goes on increasing till life is destroyed; but I have known two cases where the enlargement stopped at a certain point, the increased action of the heart in a great measure subsided, and the patients acquired a tolerable share of health. They are both now alive, and they have the prospect of living, with care, to the ordinary term of life. Such a fortunate issue is very rare; but the disease may be generally retarded in its progress by much rest of body, quietness of mind, and a very temperate mode of living. Wine and every other fermented liquor should be avoided; and the patients, under such circumstances, should live almost entirely upon vegetable food.

At the middle and more advanced periods of life, palpitation of the heart often depends upon a diseased structure of some of its valves. This condition of the heart does not admit of any remedy, but must gradually become worse, until life be extinguished. But the symptoms may be mitigated, and the progress of the disease retarded, by little exertion of the body, by great temperance, and by a few ounces of blood being occasionally taken from the arm.

Angina Pectoris.—This distressing disease almost constantly depends upon an ossification of the coronary arteries of the heart, and admits of no effectual relief from medicine. I have met with two cases, however, in the course of my medical experience, in which symptoms exactly resembling those of angina pectoris depended upon an imperfect digestion; and the patients ultimately recovered entirely, by correcting the disordered condition of the stomach.

(TO BE CONTINUED.)

Colica Pictonum.—There are various modes of treating this complaint, adopted in different countries. Calomel and opium are often resorted to in England—leeches in France, especially by the school of Broussais, while the peculiar treatment at *La Charité* is well known. M. Rauque, of Orleans, has published a new method of treatment, which he calls very simple —simple certainly in principle—but most complicated in the means. It is neither more nor less than extensive counter-irritation to the abdomen and loins, by means of a plaster composed of nearly twenty ingredients, the only active articles of which are, tartarized antimony and the lytta. The professor in question considers the disease as a decided neuralgia, seated originally in the solar plexus, and radiating thence to various parts of the abdomen, through the medium of the splanchnic nerves. There is no great objection to this theory, since it is at least as plausible as the phlogistic hypothesis of the Broussaians. M. Rauque admits that the neuralgia is often complicated with phlogosis. The mode of treatment, by extensive counter-irritation, answers both indications, and was successful in upwards of three hundred cases.

While on this subject, we may observe that, for some time past, we have been in the habit of using an antimonial plaster instead of the antimonial ointment, wherewith to produce powerful counter-irritation. It is much more easily applied, and we think, much more effectual in the end. It is made by putting about four grains of tartarized antimony to each drachm of Burgundy pitch, and thus the quantity will be regulated by the extent of surface which it is desirable to cover with pustules. Three days is the usual time required. In some persons it will take effect nearly as soon as a blister; and it never requires more than three or four days to produce a close-set crop of pustules, which will keep discharging matter for several days afterwards. We recommend it to our brethren as a most important remedy in affections of the chest and other internal organs—in obstinate headaches of a neuralgic or inflammatory nature, and in various forms of gastrodynia and dyspepsia.—*Lond. Med. Chir. Review, Jan.* 1826.

*M. Flourens on the Sense of Hearing and the Causes of Deafness.**—The author, from several experiments, concludes :—

1st. That the destruction of the tympanum and hammer do not materially affect the hearing.

2d. The removal of the stirrup weakens it considerably.

3d. The destruction of the membrane which covers the fenestrum ovale (the stirrup being still removed) weakens the auditory sense still more.

4th. The replacing of the stirrup restores to it some degree of energy.

5th. The rupture of the semicircular canals renders suddenly the hearing painful and confused, and causes, at the same time, a quick and violent agitation of the head.

6th. When the vestibule is exposed, there does not result any remarkable affection of the hearing.

7th. The partial destruction of the nervous expansion in the vestibule partially destroys the sense. The complete destruction destroys it entirely.

The part, therefore, most essential to the functions, is the nervous expansion of the vestibule; and strictly speaking, it is the only indispensable part, the others merely contributing to the extension, the energy, and modifications of the function, or to the preservation of the organ.

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* Bulletin des Sciences Medicales.

In making a practical application of these experiments, there is one cause of immediate and absolute deafness apparent, namely, the destruction of the nerve or of its expansion in the vestibule; and there are several causes of dulness of hearing, such as the destruction of the stirrup, of the vestibulary orifices, and of the walls of the vestibule and semicircular canals.

The previous experiments of M. Flourens having shown that the sense of hearing is lost by the removal of the cerebral lobes, without any part of the ear being touched, it follows that the loss of the organ of sense is completely distinct from the loss of the organ of sensation; and as each of these species of deafness is attended by peculiar symptoms, we may hence be able to ascertain the part affected; and, having discovered the seat, may thence determine the comparative importance and severity of the disease.—*Anderson's Medical Journal.*

SURGERY.

M. Janson's Case of removing a large portion of the Scapula.—A female, employed in the manufactory of silk, aged forty-three, began, in 1819, to perceive a tumour in the posterior and middle portion of her shoulder-blade: it was immoveable, painful to the touch, and appeared fixed to the bone. In 1824, this tumour had acquired the size of a child's head, was hard, wrinkled, and had occupied all the bone, excepting its inferior border and the supra spinal fossa, and had extended itself to the highest part of the axilla, with an elongated and voluminous pedicle. It was moveable in all directions, and carried the arm with it in all the motions given to it. The portion of this swelling which was situated in the axilla, obliged the patient constantly to keep his arm elevated, and at a right angle with the trunk of the body. Violent pains, darting from the shoulder along the arm, were felt in the breast. At length, from want of sleep and indigestion, the patient had become emaciated, and was evidently sinking.

On the 4th of October, M. Janson attempted the removal of the tumour. He included it within two semi-elliptical incisions; dissected the edges of the wound, so as to preserve as much skin as possible, and detached the tumour in every direction; then raising it, and the tumour breaking in the centre throughout its whole thickness, he removed the greatest part: cutting the attachment of the trapezius, of the supra and infra spinatus muscles, he discovered that all that portion of the scapula situated above its spine was in a healthy condition; and separating by the saw the diseased part of the bone, he thus preserved the articulation of the arm. Finally, laying bare that portion of the tumour situated in the axilla, by an oblique incision from below upwards, he dissected it, and drew it upwards carefully; the cellular tissue which fixed it to the arm gave way, and he succeeded in removing it entirely. All the vessels were then tied; the axilla properly supported by a plug; and the edges of the wound, which was six inches across and nine in length, were brought together with sticking-plaster.

For a few days the success of the operation was doubtful, from causes affecting the general health; but these were calmed, and the patient quitted the hospital at the end of two months, nearly cured. On the 15th of March it was entirely healed, and the motions of the limb were becoming daily more free.—*Ib.*

MEDICAL JURISPRUDENCE.

Poisoning by Cantharides.—M. Julia Fontanelle has published a case of this kind, in a late number of the Revue Medicale, which we shall condense in this place. It is well known that idiosyncrasy of constitution greatly modifies the effects of poisons, as well as of their more gentle neighbours—medicines. Thus, Amoreux relates the case of a delicate lady, who swallowed three drachms of powdered cantharides, while one of her friends took, by way of encouraging her, a very small quantity of the same material. Contrary to expectation, the *former* suffered only some ardor urinæ, and heat about the throat, which were dissipated by mucilaginous drinks and camphor; while the *latter*, who had taken so much less of the medicine, was reduced to the door of death, and narrowly escaped with life. We shall now proceed to M. Fontanelle's case.

Case. Banot, a young man, about twenty years of age, of strong constitution, was attending on his master, who laboured under low fever, and was taking bark in wine every two hours. Banot, in mixing up the fourth dose, put, by mistake, a packet of powdered cantharides (half an ounce) into the glass of wine, instead of a paper of cinchona. His master, being disgusted with the three doses already taken of the bark and wine, obstinately refused to take any more, and the servant, by way of encouragement, quaffed off the potion himself. In a few minutes, he felt a severe ardor urinæ, burning pain in the throat, and pain in the head. To these symptoms succeeded vomiting. The cause of the accident being soon discovered, he was conveyed to the hospital, and placed under the care of Drs. Martin and Caffort, who immediately administered six ounces of sweet oil, and put him into a warm bath. By these means the symptoms were a little relieved, but the vomiting continued. Milk and mucilaginous fluids were given for drink and by way of lavement, while pills of camphor and nitre were prescribed. In the evening, or eight hours after the accident, there was bloody urine, with great ardor urinæ. Next morning there was less discharge of blood, but the ardor urinæ, with strong priapism, continued. The same treatment was employed as before. *Third day.* The vomiting was much abated, and all the other symptoms diminished in intensity. It was twelve or fourteen days before the patient was able to leave the hospital, which he did, quite cured.

It is doubtful whether the oil was useful or injurious. It is certain that it is a powerful solvent of the acrid principle of the cantharides.—*London Medico-chirurgical Review*, *Jan.* 1826.

Domestic.

Case of Hydrophobia successfully treated by Acetate of Lead. By Chas. Edward Smith, M. D. of Baltimore.—Phœbe Powell, a mulatto, aged 21, residing in High-street, O. T. called at the Baltimore General Dispensary, on Monday, January 23d, 1826, for medical aid: stating, that she had been bitten by a mad dog on the preceding Friday. On examination, I found the marks of teeth in two different places about the wrist. I made some inquiry respecting the dog, and ascertained that he had bitten a dog on the ear, and several other animals. The moment the dog was bitten, the part of the ear bitten was cut off, and some applications made which removed all danger of the disease. The supposed mad dog was then chased with a design of killing him, but escaped, and has not been heard of since.—From these facts, I had sufficient reason for supposing that the dog was really mad.

I had the wounds cauterised, and ordered five grains of calomel every three hours. They were afterwards dressed with poultices, and the same treatment continued. The last time I saw her before she was attacked with the disease, was on Monday, February 6th. She was at this time labouring under a profuse ptyalism. She said that she was going into the country, that she might have some person to attend to her whilst she was salivated. She complained of a tickling pain from the wound up to her shoulder, and soreness of her throat. I then impressed upon her the importance of continuing the calomel as before. On the next day, Tuesday, February 7th, I was sent for in great haste. The messenger stated, she had "fits." I found her much convulsed, which subsided in about a minute. In the interval, she was quite rational—but her countenance presented a most dismal aspect; the salivation which, on the day before, was so profuse, had now receded; her eyes were injected with blood; great pain in the head; excessive pain from the wound up to her shoulder, and down her back; a sense of suffocation; a tightness across the chest, with a rising to the throat; immoderate thirst, with difficulty of deglutition. At this time there was no dread of water, but she was exceedingly anxious; impatient of noise; her pulse hard and frequent; and an intolerance of any thing red. After waiting about thirty minutes another paroxysm came on, which we were warned of by great restlessness and the peculiar appearance of her eyes. In the convulsions the strength of the muscles was so great, that three men could with difficulty hold her. At times there was considerable foaming at the mouth, and it was almost impossible to keep her hands out of her mouth; and when they attempted to prevent her, she endeavoured to bite those who were holding her.

It was found necessary, for the personal safety of the attendants, to put a pillow over her mouth during the paroxysm, which she would bite with convulsive eagerness. After a paroxysm she seemed dull and heavy. She was not aware of her convulsions, and great care was taken lest she should hear of them. I made particular inquiries of the family, whether she had been alarmed, and was informed she had not. She had not even been talking of the subject for some days back; and then she told her uncle that a person bitten at this season of the year was in no danger of the disease; and that some doctor told her, that as she was salivated, there was nothing to fear; and it would seem there was no apprehension on her part. On inquiring how the first paroxysm came on, I was informed, she was sewing and complained of head-ache, and in a few minutes fell from the chair convulsed: during this convulsion she at one time barked like a small dog, then howled like a hound; which circumstance did not occur in any succeeding paroxysms. I waited till I had seen three paroxysms. I was then convinced it was canine madness, (hydrophobia)—a combination of symptoms, by which the disease is most usually attended, being fully apparent: and strengthened also by the circumstance of her having been bitten by a dog, which, at the time, was believed to be mad. I then determined to administer the lead to the greatest extent I possibly could with safety to the patient; having seen a favourable report of the use of the lead in one of the daily papers of this city, last fall. In the mean time, I bled her *ad deliquium;* immediately on recovering from her faintness, she had a paroxysm as violent as any preceding. I then ordered a teaspoon full of laudanum, and gave directions to the attendants to get the acetate of lead; which directions were neglected, and the laudanum was given every three hours through the night. At the time I left her, the paroxysms returned about every thirty minutes.

On the next day, Wednesday, February 8th, I found her much worse, having paroxysms every fifteen minutes; and her thirst very great; and all the symptoms increased to a very violent and alarming extent. I determined to give of the acetate of lead (sugar of lead) 10 grains every 30 minutes. As the dose was enormous, and the frequency of administering it unprecedented, I remained with her all that day, that I might watch its effects, and avert any disagreeable consequences that might result from the use of the medicine. The disease gradually increased in violence until towards night, when the limbs became partially paralyzed. At one time she had three paroxysms in the space of fifteen minutes. There was an evident effect produced in drinking water. In the afternoon, in the presence of several physicians, I handed her water in a tin cup; in the act of swallowing it, a spasm was produced in the throat; she bit the cup and held it so fast between her teeth, that it was with considerable difficulty I could extricate it from her. About 5 o'clock P. M. the violence of the paroxysms began to subside, nor did they occur so frequently; she had not slept or taken any food.

Thursday, 9th, 11 o'clock A. M. She continued to improve, and the same treatment was continued 5 o'clock P. M.—she was not as well as in the morning, and refused to take the medicine, as it made her sick. Goulard's solution (a preparation of lead) was substituted in the dose of 100 drops every thirty minutes.

Friday, 10th, 11 o'clock A. M. She had much improved, the symptoms subsiding rapidly, but she had not slept nor eaten any thing since her attack. The acetate of lead was given as before, and Goulard's solution discontinued. At 5 o'clock P. M. there was no material change since the morning; nor the limbs completely paralysed. I then ordered a blister to be applied, and dressed with an ointment made of two drachms of the acetate of lead, and one ounce of simple cerate; the other medicine to be continued.

Saturday, 11th, 11 o'clock A. M. Last night (for the first time) she slept well, only having one paroxysm, which was at 11 o'clock in the night. This morning she breakfasted with appetite; the lead ointment had the desired effect, and completely paralysed the limb to which it was applied. 5 o'clock P. M. No return of the paroxysms; she slept through the day, and took nourishment freely. She complained most of the pain in her head and stricture across the chest; bowels constipated; tongue brown; considerable fever; pain in the stomach. Ordered an ounce of Epsom salts, and if it should not operate in three hours, the dose to be repeated. The lead was now discontinued, and the blister ordered to be dressed with simple cerate.

Sunday, 12th, 11 o'clock. Continued to improve; the medicine operated freely; fever abated; tongue not so brown; no medicine required.

Wednesday, February 22d. The patient was now walking about the house; the paralysis relieved; occasionally she was ordered small doses of laudanum, and the Epsom or Glauber salts, with the view of keeping the bowels open and carrying off the effects of the lead. She complained of head-ache and pain across the chest. I ordered her to be bled, and an ounce of Epsom salts; no other medicine required.

Friday, 24th. Did not complain, excepting general lassitude and fatigue; tongue clean; appetite good; slept well; pulse soft and natural; the blood-letting relieved the pain in the head and chest.

Remarks.—We have every reason to believe this woman is now cured of the above formidable disease. The lassitude and fatigue she at this time laboured under is a natural consequence of the severe shock her system received, from the very violent and repeated convulsions during the disease; and also from the immense quantity of lead she had taken, being 330 grains of the acetate, and 4 ounces of Goulard's solution, in four days; besides the application of the lead externally. From the experience I have had in this case, I am induced to believe, that the early application of lead externally, through the medium of blisters, would be more prompt and decided, as it may be observed from the foregoing report, that it was not until Friday that she became completely paralysed; and then only on the limb to which they were applied: and on that night the paroxysms ceased; she slept well, and eat heartily on the next morning; from which time she had a rapid recovery. I am indebted to Dr. Fonerden for the suggestion of introducing the lead externally, and I believe it to be an important point in the treatment of this disease; the object being to paralyse the patient, it is of great moment to do it *certainly*, *quickly*, and *safely*.

Baltimore General Dispensary, February 25th, 1826.

INTELLIGENCE.

MEDICAL SOCIETY OF THE STATE OF NEW-YORK.

The Annual Meeting of the Medical Society of the State of New-York was held at the Capitol, in the city of Albany, pursuant to the statute, on Tuesday, the 7th of February, 1826. The following Delegates were present—viz.:

James R. Manley, *Pres. N. York.*
T. Romeyn Beck, *Vice do. Albany.*
Platt Williams, *Sec. Albany.*
Jonathan Eights, *Treas. Albany.*
Laurens Hull, *Oneida.*
Elial T. Foote, *Chatauque.*
Daniel Ayres, *Montgomery.*
Peter Wendell, *Albany.*
John Van Name, *Rensselaer.*
J. B. Beck, *Col. Ph. & Sur. N. York*
Joshua Converse, *Schoharie.*
Truman B. Hicks, *Warren.*
Delos White, *Otsego.*
Henry Van Hovenburgh, *Ulster.*
William Bay, *Albany.*
Horatio Orvis, *Jefferson.*
Amos Botsford, *Greene.*
Jas. McNaughton, *Col. Phys. and Surg. Fairfield*
James Stevenson, *Washington.*
Thomas G. Evans, *Orange.*
Ira H. Smith, *Cayuga.*
Harvey W. Doolittle, *Herkimer.*
Campbell Waldo, *of Cayuga.*
John Lynde, *of Cortland.*
Robt. Collins, *of Rensselaer.*

The following gentlemen were chosen Officers for the ensuing year:

Dr. JAMES R. MANLEY, *President.*
— T. ROMEYN BECK, *Vice-President and Librarian.*
— PLATT WILLIAMS, *Secretary.*
— JONATHAN EIGHTS, *Treasurer.*

CENSORS

Dr. Felix Pascalis,	*Southern District.*
— Charles Drake,	
— John B. Beck,	
— William Bay,	*Middle District.*
— Peter Wendell,	
— J. McNaughton,	
— John H. Steel,	*Eastern District.*
— Daniel Ayres,	
— James Stevenson,	
— Alex. Coventry,	*Western District.*
— Laurens Hull,	
— Luther Guiteau,	

Dr. H. W. Doolittle,	*Committee of Correspondence.*
— Elial T. Foote,	
— Delos White,	
— Ira H. Smith,	
— H. Van Hovenburgh,	
— Samuel Freeman,	
— Truman B. Hicks,	
— Thomas G. Evans,	
— John B. Beck,	*Committee on Prize Dissertations and Questions.*
— Peter Wendell,	
— T. Romeyn Beck,	
— Charles Drake,	
— Jas. R. Manley,	

John Watts *of New-York*, and Daniel Ayres *of Montgomery County* were elected Permanent Members.

The following gentlemen were nominated as Honorary Members:

Joseph Lovell, M. D. *Surgeon General, Washington.*
John Lizars, *Fellow of the Royal College of Surgeons, Edinburgh.*
Dr. **John Onderdonk**, *New-York.*
Joseph Bloodgood, M. D. *Queens County.*

The following gentlemen have been Licensed by the Censors during the year 1825:—1. **Ananias M. Brewster**, of New-York (State); 2. **Joseph Nichols**, of Montreal; 3. **Lucius Hyde**, of Rensselaerville; 4. **John S. W. Parkin**, of New-London; 5. **Sanford R. Knapp**, of New-York (State); 6. **B. Guernsey**, of New-York (State); 7. **James Hubbel**, of Yorktown, Dutchess County; 8. **Henry Van Antwerp**, of Albany; 9. **Asa J. Buddock**, of Franklin County (Mass.); 10. **Samuel W. Denton**, of Wallkill, Orange County.

UNIVERSITY OF THE STATE OF NEW-YORK.

College of Physicians and Surgeons of the Western District.—The Regents of the University on the 25th of January, 1826, conferred the degree of Doctors of Medicine on the following gentlemen, graduates of the College of Physicians and Surgeons, Fairfield, who had read and defended Theses on the subjects mentioned below.

1. Benjamin B. Armitage, of Oneida county—*On the Improvement of Medicine.*
2. Erasmus D. Barney, of Saratoga county—*On Dysentery.*
3. Levant B. Cotes, of Otsego county—*On Empiricism.*
4. Forester Dexter, of Jefferson county—*On the Effects of Habit on the Body and Mind.*
5. Charles Drake, of Herkimer county—*On the Blood.*
6. Luther Guiteau, jun. of Oneida county—*On Cold, and its Effects on Wounded Arteries.*
7. Fitch Howes, of Otsego county—*On Phthisis Pulmonalis.*
8. William W. Kidder, of Seneca county—*On Blisters.*
9. John A. Kinnicut, of Erie county—*On Strychnine and Brucine.*
10. Daniel Lee, of Chatauque county—*On the Epidemic Purulent Ophthalmia of the Western Country.*
11. D. K. McLallen, of Tompkins county—*On Tobacco.*
12. William Mather, of Herkimer county—*On Necrosis.*
13. Julius Rowley, of Schoharie county—*On Cancer.*
14. Elijah Sedgwick, jun. of Oneida county—*On Pain.*
15. Parker Sedgwick, of Oneida county—*On Sulphate of Quinine.*
16. William B. Sprague, of Saratoga county—*On Animal Heat.*
17. William Van Zandt, of Georgia—*On Sensation and Motion.*
18. Loomis Warner, of Herkimer county—*On Opium.*
19. Samuel Wetmore, of Oneida county—*On Digestion.*

METEOROLOGICAL TABLE

FOR THE YEAR 1825.

Kept at the City Academy, Albany, by T. Romeyn Beck, M. D.

1825.	THERMOMETER.								WEATHER.						WINDS.								
	Mean temperature at 7 A. M.	Mean temperature at 2 P. M.	Mean temperature at 9 P. M.	Mean of all the observations.	Highest.	Lowest.	Great. month. range.	Greatest daily range.	Clear.	Cloudy.	Variable.	Snow (num. of days)	Rain (num. of days)	Rain—Total number of inches.	North.	North-East.	East.	South-East.	South.	South-West.	West.	North-West.	Prevailing Winds.
January	22.51	30.06	25.16	25.91	40	6	34	25	6	14	11	3	2	..	6	..	..	4	10	4	1	6	South.
February ...	23.35	32.17	27.64	27.72	44	3	41	21	8	16	4	5	3	.	4	2	..	4	4	2	4	8	North-West.
March	33.80	45.78	38.74	39.44	63	25	38	21	15	12	4	3	5	..	11	1	1	2	3	..	6	7	North.
April	42.13	57.87	48.90	49.63	72	29	43	30	12	9	9	..	5	..	9	..	1	2	5	1	5	7	North.
May........	52.74	70.19	59.32	60.75	82	37	45	27	18	4	9	..	4	1–21	7	1	..	1	12	1	3	6	South.
June	66.30	80.10	71.53	72.64	98	57	41	23	19	6	5	..	7	5–78	3	..	..	4	11	2	5	5	South.
July	69.19	85.42	76.61	77.07	96	60	36	24	21	4	6	..	6	1–13	..	1	1	5	9	4	4	7	South.
August......	65.03	79.74	71.38	72.05	89	55	34	26	20	6	5	..	9	6–43	5	2	..	5	6	1	1	11	North-West.
September ..	54.63	67.43	59.06	60.37	77	41	36	24	10	10	10	..	6	0–97	2½	2	1	4½	5½	3½	5½	5½	North-West.
October.....	48.03	58.41	51.93	52.79	79	29	50	23	13	10	8	.	6	4–91	4	1½	.	6	8½	1½	3½	6	South.
November ..	32.50	43 20	35.83	37.17	58	17	41	22	13	9	8	2	2	1–48	4½	3½		2½	7½	3½	3	5½	South.
December...	27 29	33.35	29.64	30 09	48	–6	54	20	11	12	8	3	4	2–31	4½	.	..	6	6	7	4	3½	South-West.

RESULTS

Mean temperature at 7 A M.	44 79
Mean temperature at 2 P M.	56.97
Mean temperature at 9 P. M.	49 64
Mean temperature of the year 1825, according to the above observations	50 46
Highest during the year	98
Lowest during the year	-6
Greatest daily range	30
Greatest monthly range	54
Greatest annual range	104

WEATHER.

Clear number of days	166
Cloudy	112
Variable	87
Rain, number of days on which it fell	59
Snow, do do.	16
Rain-guage for the last 8 months,	24 inches 22 100

WINDS.

North, number of days	60½
North-East	14
East	4
South-East	46
South	87½
South-West	30½
West	45
North-West	77½
Prevailing wind—South.	
	365

QUARTERLY BIBLIOGRAPHICAL NOTICES.

1. *The Study of Medicine.* By JOHN MASON GOOD, M.D. F.R.S. F.R.S.L. &c. In 5 volumes. Fourth American Edition. Reprinted from the last London Edition, greatly improved and enlarged. Boston, 1826.

The fact of four editions of this celebrated work having been published in this country since 1823, exhibits in a most striking point of view the high estimation in which it is held on this side of the Atlantic. It is with much satisfaction we learn, that it is superseding, in every direction, the "Modern Practice of Physic" of Dr. Thomas. This is as it should be, and is creditable to the taste as well as to the discrimination of the American medical public.

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2. *The North American Medical and Surgical Journal.* Conducted by HUGH L. HODGE, M.D.—FRANKLIN BACHE, M.D.—CHAS. D. MEIGS, M.D.—B. N. COATES, M.D. and R. LA ROCHE, M.D. No. I. January 1826. Philadelphia. Quarterly.

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3. *The Elements of Medical Chemistry: embracing those branches of Chemical Science which are calculated to illustrate or explain the different objects of Medicine; and to furnish a Chemical Grammar to the Author's Pharmacologia.* Illustrated by numerous Engravings on wood. 8vo. By JOHN AYRTON PARIS, M.D. &c. New-York, 1825.

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4. *A Grammar of Chemistry, adapted to the use of Schools and private Students, by familiar illustrations and easy experiments.* By J. L. COMSTOCK, M.D. With numerous Engravings on wood. Second Edition. 12mo. Hartford, 1825.

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5. *Transactions of the Medical Society of the State of New-York for the year* 1826. (See Intelligence.)

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6. *The American Journal of Sciences and Arts.* Conducted by BENJAMIN SILLIMAN, Professor of Chemistry in Yale College, &c. No. 22. February 1826. (In Exchange.)

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7. *Journal of the Philadelphia College of Pharmacy.* No. I. for December 1825.

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8. *The Medico-Chirurgical Review.* Conducted by associated Physicians and Surgeons, and Superintended by JAMES JOHNSON, M. D. Nos. 19 and 20. New-York. Published by S. C. Schenk.

Our object in noticing these reprints, at the present time, is to bear witness to the improved typographical appearance which they have assumed under the direction of the present proprietor. Of the value of Dr. Johnson's periodical labours we have before had occasion to speak; and we have only to hope that Mr. Schenk will be liberally rewarded for his spirited exertions in diffusing them among the profession in this country.

New-York City Dispensary.

With much pleasure we publish the following notice. We hope most sincerely, that this very useful institution may receive that extensive patronage to which it is so justly entitled.

The Trustees of the New-York City Dispensary give notice, that in consequence of the number of applicants, and the present limited accommodations, the diseases of out-door patients will be divided into separate classes, and attended to in the following order:

Surgical diseases, from 9 A. M. to 10 A. M. by Drs. Weed and J. C. Arnold.

Diseases of Head and Chest, from 10 A. M. to 11 A. M. by Drs. J. I. Graves and S. V. R. Ten Broeck.

Abdominal diseases and complaints of Females, from 11 A. M. to 12 M. by Drs. W. Murray and D. L. M. Peixotto.

Diseases of Eye and Ear, from 12 M. to 1 P. M. by Drs. B. Ogden and P. Forrester.

Diseases of Skin, &c. from 1 P. M. to 2 P. M. by Drs. M. Willett and C. Wright.

JOHN WATTS, *President.*

J. I. GRAVES, *Secretary.*

TO READERS AND CORRESPONDENTS.

1. The following notice has been received from Dr. T. Romeyn Beck, of Albany, and is published at his request:

" In preparing the ' *Elements of Medical Jurisprudence*' for the press, the attention of the author was necessarily directed to the very interesting controversy excited in Great Britain, in consequence of the trial of Mr. Angus. He was favoured with the perusal of a copy of the ' *Vindication of the Medical Witnesses for the Crown,*' on that trial, and ventured to speak of it in terms which its merits appeared to deserve. From information on which he supposed that he could rely, he stated the author of it to be Dr. Bostock, late of Liverpool and now of London. By a letter, however, with which he has lately been favoured from John Rutter, M. D. of Liverpool, it appears that he has been misinformed, and he hastens to correct his involuntary error. He is authorized to state, that the authorship of the above pamphlet is with Dr. Rutter; and the references, therefore, in pages xiii, 149, 150, 207, of the 1st volume of the ' *Elements,*' should be altered accordingly."

2. The press of matter in the present number has unavoidably excluded several articles on hand. They shall be duly noticed in our next.

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Art. I. *Reflections on Diseases of Irritation* By James Fountain, M. D. Fellow of the College of Physicians and Surgeons of the University of the State of New-York.

"In respect to diseases, there is every reason to believe that their causes operate primarily on the nervous or sentient system of our frame, and secondarily on the vascular system."—*Johnson's Treat.* p. 166.

No country on earth, perhaps, presents greater or more sudden vicissitudes of weather than the United States. We often retire with an atmosphere of 45° of Fahrenheit, and in the morning find the quicksilver at 20° or lower, sometimes even below Zero. This rapid change of temperature, together with the humidity arising from our proximity to nearly two thousand miles of sea-board, must necessarily render inflammation the most prominent feature in the catalogue of our morbid affections. Hence this state of the system occupies the greatest portion of the attention of physicians, who being, like other men, creatures of habit, and like them, also subject to indolence, are led insensibly to view every disturbance of the vascular system as the effect of inflammation. The consequence is, as might be anticipated, frequent errors are committed in mistaking diseases of irritation for those of an inflammatory character. To obviate, in some measure, this tendency, and to invite medical men to attempt a discrimination between *irritative* and *inflammatory* diseases, is the object of this paper. To facilitate the investigation, it will be necessary, previous to entering on the subject of irritative diseases, to premise a few observations on the pathology of inflammation.

Every movement in the living body, whether sensible or insensible, is the effect of an agent acting on the vitality of the moving fibre. As there is no effect without a cause, so there is no action in the living system which does not necessarily presuppose an agent and a vital principle. In health, all the multiform actions are harmoniously produced by their appropriate agents acting on the various modifications of vitality. Health, therefore, consists in the due application of these agents, and a consequent responsive action adequate to the regular performance of the various functions of the body. When the power of the agent is increased, the living principle remaining the same, a greater movement must ensue; or, the living principle being exalted, and the agent remaining the same, a similar elevation of movement must arise. Hence, when an increased action is manifest in a part, or the whole of the living body, it follows that there must be an augmentation either of the force of the agent or of the vital principle. or of both. Either of these states may obtain to a certain point, and yet the health remain unaffected; but if carried beyond that point, the functions become deranged, and disease is induced.

All agents capable of producing an accelerated movement, or simply an elevation of *natural action*, must be called strictly *stimulants*, or excitants, and their effect *excitement*. This excitement also, to a certain point of elevation, is consistent with health; but above that point, by deranging the functions of the part affected, it becomes morbid, constituting inflammation. "This," says Richerand, "may, I believe, be defined an increase of the vital properties in the part which it affects." This has been the fundamental doctrine of inflammation, entertained from time immemorial by all medical authors, with the exception of Messrs. Allen, Phillips, Parr, Thomson, and Hastings. "Yet," says Dr. Bostock, "it appears to me that both the exciting causes of this affection and the treatment, coincide more with the idea of excessive than of defective action." By others, however, especially Doctors Burns and Copland, the action is considered not only increased in degree, but changed in kind. This modification of the doctrine has been evidently admitted for the purpose of comprising venereal, erysipelatous, and other actions, called by Dr. Burns specific, and by Dr. Cooper, morbid inflammations—all of which may be disposed of elsewhere. Simple inflammation, then, the healthy inflammation of Cooper, may be defined *a morbidly excited or exalted condition of all the parts concerned.*

As a proof that inflammation consists of increased action only, I shall adduce one example as sufficient; and the most familiar and unequivocal one is, the effect produced by the application of caloric to the living body. Here the gradual augmentation of the quantity of the agent will produce a corresponding elevation of action, until all the phenomena of inflammation are developed, without the least evidence of change in kind of action, more than what arises from excess. Its effects, however, tumefaction, effusion, suppuration, &c., must not be confounded with its essence. The want of discrimination between cause and effect, has ever been a stumbling-block to pathologists, and led to innumerable fallacies.

That the essence of inflammation is merely exalted action, derives additional support from the nature of the remedies, which even Burns, with all his ideas of changed action, recommends. "The general remedies," he observes, "are naturally such as tend to abate action in general, or to diminish the natural, and therefore will consist of bleeding, cold, purging, &c." But when he comes to the local treatment, he recommends "such articles as tend to excite, to a certain degree, a specific change of action." The remedies which he introduces to effect this change, however, resolve themselves readily into such as tend either to diminish morbidly excited action, or to remove its effects.

Inflammation varies not only in degree, according to the intensity of the exciting cause and the grade of predisposition, but in character, according to the structure of the part affected, as the membranous, parenchymatous, mucous, &c. What is termed passive, or chronic inflammation, by authors, is either the subacute state, or merely the effect of a less excessive action.

When the exciting causes of inflammation are applied to the system generally, a universal excitement prevails, constituting synocha. Provided the system is properly balanced, a uniform fever ensues; but if a part be predisposed, this assumes a still higher action, proportionate to the grade of predisposition, and thus a local effect is developed. The superior sensibility of the part thus affected, is still farther augmented; parts with which it naturally associates sympathise, and, growing in importance, the whole system is finally brought under its influence, and from an effect it becomes a cause, and a symptomatic fever is the result, modifying the original movement. As there are few persons, the energies of whose systems are properly balanced, so there are few inflammatory fevers uninfluenced by local determinations.

Having considered morbidly excited action arising from an increased application of the agent only, I would just repeat that the same effect, *cæteris paribus*, may result from an augmented aptitude, or exalted condition of the whole or a part of the system. Every person must unquestionably have experienced, at some time or another, a violent and almost instantaneous *gust* of pulsation, not only of the heart, but of the whole arterial system. This must incontestably arise from the sudden emanation of sensorial power with electric-like velocity. Numerous instances might be adduced of fevers and inflammations arising from excessive joy, where predisposition existed. Moreover, predisposition itself is nothing more than this elevated state of vitality, or increased susceptibility of impression in a part or the whole of the body, consequent to debility; for it appears to be a law of the animal economy, that nervous irritability, the *latent organic sensibility* of a part, is in an inverse ratio with its tonicity or vigour, or in exact proportion to its debility. In parts thus circumstanced, inflammation is more readily excited, for two very good reasons:

first, vitality, or aptitude to impression, being more exalted, an increased action is thereby more easily induced; second, a less degree of action becomes morbid, being sufficient to derange the functions of the debilitated part, constituting inflammation. "We may, therefore," says Mr. Abernethy, "account rationally, and in conformity to acknowledged facts, for the production of diseases in vital organs, by supposing, that a state of general weakness and irritability being induced, the naturally weak parts suffer in the greatest degree, and *in consequence* they most readily become the subjects of disease." According to this view of the subject, the general disorder of the system becomes the exciting cause of the local disease, and must of necessity precede it. This is corroborated by daily experience; for in pneumonia, pleuritis, &c., the general system is disturbed by rigors, and wandering pains, for hours, and sometimes days, before the local affection is developed. "In our present state of knowledge, therefore," observes the same author, "I think it better to consider the disturbance of the system in general, as merely the exciting cause of local disease."

I am aware that this view is not in exact accordance with the doctrine of Dr. James Johnson. His five sympathies suffice, in his opinion, to account for the production of all internal inflammations from external causes: but he might have availed himself of as many more; for cold will produce not only his cutaneo-pulmonic, cutaneo-gastric, cutaneo-enteric, cutaneo-renal, and cutaneo-hepatic affections, but quite as often tooth-ache, ear-ache, rheumatism, &c., forming cutaneo-odontic, auric, arthritic, &c. Now all, or some one of these effects, ought to arise from every severe application of cold, and yet people are often frozen almost to total insensibility, and no disease results. We must, then, of course, resort to the aid of predisposition; and to suppose the skin to sympathise with the predisposed in preference to a sound part, is to render the laws of sympathy wholly fortuitous. The fact is, every organ possesses, besides its own peculiarly modified vitality, a living principle in common with every other part. This property resident in the nervous tissue, the connecting medium of the whole system, receives all impressions, which are conveyed in a greater or less degree to every part of the system, and a local or general, or no disease, is produced, as a part or whole of the system is predisposed or otherwise.

Having taken a cursory view of morbid excitation, or inflammation, properly so called, I shall revert to *original* action, and take a general survey of those movements which are justly said to be changed in kind. Of these, some are increased and some reduced in degree, according to the state of their vitality, and the nature of the exciting causes; and yet all are *modified in kind.* These constitute the poisons, the "morbid" and "specific" inflammations of authors, and many other affections located by them in the former class. There are similar affections of the nervous system exclusively, in which vascular action does not necessarily participate; to all of which I propose to restrict the term *irritation.* The agents capable of producing this perturbed movement, are the true *irritants*, and cannot, in strict conformity to pathological language, be called stimulants.

Irritation may be divided into *organic* or *structural*, and *nervous.* The structural, involving both the vascular and organic nervous tissue of the part affected, has its seat, as well as inflammation proper, according to Dr. Copland, in the ganglial, or organic system of nerves only; or those, to which are entrusted the development and support of every part of the system, of which the great sympathetics are the centre. *Nervous* irritation, on the contrary, is confined to the sentient, or cerebro-spinal system of nerves, or those adapted purely to sensation and voluntary motion.

Dr. Brown, in his Elements, admits that there is an action differing from excitement or the abstraction of stimulus; and to this state he applies the term irritation, and denominates all substances capable of producing it, *irritants:* yet other writers, equally distinguished for sagacity and depth of penetration, make irritation a class, and rank under it diseases of the whole system, which they denominate "affections universally local"—that is, local actions produced in every moving fibre, by the direct application of the irritating cause. Not having access to the writings of the Italians, I am unable to quote their own words; yet it appears, according to them, as it must to every reflecting mind, that there exist between agents and vitality certain relations; so that some substances are congenial to the vital laws producing regular excitement, or simply an elevated condition of the part to which they are applied; whilst others are repugnant or non-conformable to those laws, producing a disturbance, or movement of disgust or disorder, differing essentially from that of regular excitement. This last set are the irritants, and their effect is *irritation.*

Organic Irritation.

What particularly distinguishes this state is, that it is incapable of being subdued, either by the addition or abstraction of stimuli; for whether the movement be elevated or depressed, it remains the same action still, differing only in intensity. Dr. Johnson, in the Medico-Chirurgical Review, admits of a class of diseases of irritation, whose characteristic is the peculiarity of being irremediable, either by stimulation or depletion.

Tommasini and others, however, deny the existence of a diathesis of irritation, or irritative diseases independent of the presence of the irritating cause. This opinion, I would humbly observe, must have resulted either from inattention or inexperience. I have known a most violent erysipelatous affection, originating from the application of a plaster of Burgundy pitch, to spread from the seat of its location over the whole body, and continue ten days after the removal of the plaster. I have seen similar universal affections induced by the application of gum galbanum, and a variety of terebinthinates.

The only irritative disease I shall adduce at present, illustrative of changed action, is that developed by the application of the poison of the different species of the *Rhus.* This disease, so familiar to country practitioners, like every other erysipelatous action, has ever been treated in a most unsettled and desultory manner. Hot and cold, wet and dry, stimulating and sedative applications, have been severally recommended, and found support even amongst the ablest writers. This contradictory treatment is a sufficient proof of the want of just pathological principles. Did this disease consist in inflammation only, bleeding, cold and saturnine applications, would inevitably and speedily remove it; on the contrary, did it consist of deficiency of action, stimulants would as readily answer the same end; neither of which is the fact, though both plans are occasionally useful as *adjuvants*. This subject, however, will be resumed another time.

Besides the trait of being irremediable by stimulation or depletion, irritative diseases evince another peculiarity, that of being frequently continued from habit. This arises most probably from their implicating, in a special manner, the nervous system, on which habit solely depends. Mr. Abernethy, in allusion to cancer, observes: "Local diseases, however induced, may become established by habit, or continued from that state of disorder into which they have reduced the part that they have attacked." Not only local, but some general diseases, we shall subsequently find, are similarly influenced. As there are local and general inflammatory actions, so there are *limited* and *universal* irritations, both governed by the same laws, and acting on the same principles.

Causes of Irritative Diseases.

The causes of irritative diseases naturally divide themselves into predisposing and exciting. Dr. Johnson seems to question the strict propriety of this division; and in support of his opinion, he offers an example, the fallacy of which will be proved by another example, under the head of *Intermittent Fever.* Predisposition does not necessarily precede the exciting cause. The *præ* renders it antecedent, not to a thing, but to a state, *disposition*, or *disease.* Hence predisposing causes of most diseases, are such as induce a susceptibility to impression, or disposition of body to be acted upon by the exciting causes, whilst these directly call up or induce that particular movement which constitutes the disease. The exciting causes of irritative diseases, are *agents* either applied or introduced into the body, where they may, and often do, continue and circulate an indefinite length of time, until a predisposition is by some means induced, when they suddenly produce their effect.

As the healthy is opposed to changed action, it follows, that whatever impairs the former, must favour the evolution of the latter. Hence the predisposing causes must comprise whatever tends to derange the healthy order of movement, or interrupt, in any manner, the regular performance of the functions of the body. The exciting causes comprehend all such agents as are in any way applied to the living body, either directly, or through the medium of circulation, having a tendency to produce that peculiarly modified action constituting irritation. The exciting causes are sometimes so intense, as to produce disease in every person with whom they come in contact, but in general they do not; which clearly indicates, in such cases, the necessity of predisposition.

Therapeia of Organic Irritative Diseases.

When called to the bed-side of the sick, every practitioner is led, in all cases, to examine the pulse. Finding arterial action at variance with the healthy standard, the first question which demands his attention is, whether the deviation be the effect of irritation or of inflammation. If the pulse be moderately accelerated, firm, hard, and regularly resisting, an inflammation may be reasonably presumed to exist. If, on the contrary, the pulse be full, soft, and quick, with a confused or hurried beat, resembling that produced by a gust of passion or an affright, we may suspect some considerable irritation to be present. As with inflammation, so with irritation: if the affection be slight, or just emerging, the pulse will be little or not at all affected. In such cases, we shall find the morbific agent to be of an inferior grade, or acting on a limited part only. If the affection be external, the redness and swelling will be more diffused, and irregularly circumscribed; there will be a burning, smarting, and itching sensation confusedly blended together. From such a combination of symptoms, no one would hesitate to pronounce the action to be that of irritation. Having determined the nature of the movement, the next object is to ascertain whether, in addition to the modified action, the vitality be above or below the medium standard. These three states,—the superior, the medium, and the inferior grades,—depend on the predisposition of the subject, and the quality of the exciting cause; consequently they can be ascertained only by a knowledge of the age, temperament, &c. of the patient, and of the nature of the agent.

As there is frequently an elevated or depressed vitality accompanying irritative action, so the remedies naturally divide themselves into such as regulate vitality, and such as correct modified action. The first are merely *adjuvant;* the second only can be called strictly curative. The term *cure* is often misapplied. Medical men speak of curing patients, when, in fact, they only permit them to get well, or to say the most, facilitate recovery by removing obstructions. This is more especially true of irritative diseases; the susceptibility to the action of almost all agents diminishing with the continuance of their application, they finally cease to produce any effect; the changed gives place to the natural action, and health ensues: hence so many frivolous remedies have been introduced for the cure of poisons.

Adjuvant Remedies.—These are such as reduce exalted or support enfeebled vitality, or remove concurrent causes of irritation. These measures are often themselves sufficient to afford relief, the natural power of the system being thereby enabled to triumph over changed action.

Curative Remedies.—These are such as induce a new irritative action more powerful than that which constitutes the disease; and, at the same time, more under our control, and consequently less dangerous. The means for accomplishing this end are the proper counter-irritants, and they should be administered in such a manner as to raise the new irritation as soon as is safe, before the susceptibility to their action is worn out. If the article we wish to employ possesses a power inferior to that constituting the disease, it will only aggravate the original action by adding another irritation to the one already existing. It therefore becomes an imperious duty of the practitioner to ascertain by careful reflection whether he is able safely to raise an irritation more powerful than that which he is endeavouring to remove. If not, he must decline the attempt, and adopt the palliative plan.

The method of cure by counter-irritation is strictly only substituting one disease for another; it is, however, when properly conducted, instituting a lesser for a greater evil; and skilfully managed, it affords a handsome specimen of medical power.

Nervous Irritative Diseases.

Pathology.—The writers on irritation alluded to, restrict their observations to structural irritation, wholly overlooking those which are confined to the nerves. They speak of irritation of extraneous substances thrust into the body, mechanical lesions, &c. without discriminating between those irritations which are primarily purely nervous, and those resulting from the introduction or application of poisons, which mostly involve the whole structure of the part. In proof that the nerves alone admit of various actions, it will be sufficient to advert to the writings of Darwin, Richerand, Majendie, &c. "It is undoubtedly," observes Richerand, "by a motion of some sort, the nerves act. Setting out from this simple idea, one may admit several *kinds* of nervous motion." And M. Majendie, speaking of the passions, observes, "they result from the *action* of the nervous system." Every one will readily recognise the difference of sensation between that agreeable thrill which pervades the system, on the reception of good news, or the enjoyment of pleasurable emotions, and that horror or rigor which is called forth by intelligence of an unwelcome or portentous nature, by disgusting company, or painful reflections.

As the nerves are the recipients of all impressions, so they are the only parts affected primarily, and sometimes even at all. The first painful sensation of foreign bodies, as splinters thrust into the body, is purely nervous. The irritation of a diseased liver produces frequently a violent pain in the shoulder, arms, fingers, face, eyes, and even the tip of the nose. Now it must be evident to the most superficial observer, that these affections are originally unattended by any structural derangement. They have a constant tendency to produce organic derangement, and finally to develop inflammation in the part. Tommasini observes, "every diathesic process which can succeed to irritation, will be of the phlogistic character." Dr. Phillip also observes, "many facts point out that long-continued nervous irritation at length terminates in inflammation of the organ affected. Even an affection which in the first instance is wholly sympathetic, arising from irritation applied to a distant part, will, if severe, or long continued, terminate in inflammation of the part sympathetically affected." "The seats of these sympathetic irritations," says Broussais, "are also suddenly transferred from point to point; and, what is of still more importance, the irritations are liable to be suddenly converted into unequivocal inflammations." The pain arising from nervous irritation, and that resulting from inflammation, are as unlike in sensation as are the states of the parts by which they are induced.

The inflammation consequent to nervous irritation being purely an effect, must be proportionate, in a great degree, to the intensity or duration of its cause. In therapeia this is an important point to be kept in view, and will be subsequently illustrated in treating of irritative diseases in detail.

Therapeia of Nervous Irritative Diseases.

Nervous diseases are either relieved, or materially modified, by the inflammation or organic derangement consequent to such a state. The pain of a splinter thrust under the nail, or from punctured and other wounds, is either wholly relieved or greatly modified by the subsequent vascular action thereby induced. Nervous irritations, symptomatic of internal organic derangement, are also relieved, or materially changed, when inflammation is induced in the part sympathetically affected. A new train of actions ensues; the nervous is converted into organic derangement, and a new sensation is the result.

In sympathetic affections, the development of organic derangements in the part, acts as a counter-irritant, and thus tends to relieve the original affection; as Dr. Phillips observes, "in proportion as the secondary affection begins to be changed into actual disease of the part affected, it tends to relieve the disease from which it sprung." Thus, when sympathetic affections of the liver or lungs are converted into actual pneumonia, or rheumatism, they are relieved.

In the treatment of all diseases, the first grand object is, if possible, to remove the exciting causes when they continue to operate. Therefore, in all sympathetic irritations, our main indication is to remove the original affection by means best adapted to the different internal disorders.

In primary nervous irritations our object is to attempt their direct removal, whereby we prevent or moderate the subsequent inflammation. The indication for accomplishing this object is to raise the action of the vascular system of the parts concerned, until it is sufficient to induce a change in the state of the nerves capable of supplanting the morbid process, or to create a new action in the nerves adequate to the same end. The former is to be effected by stimulants and tonics, and the latter by irritants. The adjuvant plan consists in reducing directly the nervous irritability by narcotics, and keeping it down until the natural action of the vascular system shall be able to overcome the nervous irritation.

I am not unaware that excessive vascular action is productive of spasmodic actions, evinced by subsultus tendinum, convulsions, &c.; but it is by no means ascertained whether or not these phenomena arise from the action of the vessels on the nerves themselves, or on the cerebrum and spinal cord. When we reflect on the extreme delicacy of the brain; also, that circumscribed inflammations, how severe soever they may be, never induce those irritations until the *whole* vascular system is affected, we may reasonably adopt the latter opinion. Convulsions, and all cerebro-spinal irritations, not being functional derangements of the nerves only, form no objection to my plan of treatment, which is limited to a disordered state of the functions of the nerves, originating from the various modifications of the sensibility of the nervous matter. I cannot but believe that the medulla of the brain is also liable to the same morbid action. In typhus, and many other states, there are evident manifestations of perverted action, admitting relief from stimuli and irritants. C. H. of Putnam, had been many years delirious; having accidently the small-pox, he barely escaped with his life, but was perfectly relieved of his insanity, and remained mentally sound to good old age. Many instances more might be adduced of the practicability of overcoming even cerebral irritations by vascular action.

Having glanced over the most prominent doctrines of irritative diseases, I shall now consider a few of them individually, confining myself to such *only* as have fallen under my *own* observation and management.

First.—*Diseases of Nervous Irritation Wounds.*

In wounds of every description, vascular action is neither increased, diminished, nor changed primarily by the solution of continuity. Although the vitality of the extremities of the divided vessels be sometimes utterly destroyed, as in gunshot wounds, yet the action of that portion of the vessel contiguous to the disorganized part is unaffected; consequently the irritation, or first painful sensation, must result from the violence done the nerves only. "Thus," says Broussais, "irritation is the parent, or first step to inflammation." The promptitude, the intensity, and the length of the irritation, depend on the organization of the part affected, and the nature of the wound. In wounds of muscular, and all parts possessed of great vascularity and a high degree of vitality, the action of the arteries will soon be roused, and quickly overcome the nervous irritation, which must, under such circumstances, be of short duration and inferior grade. But in wounds of membranous, ligamentous, and all other parts sparingly supplied with vessels, and feebly endowed with vitality, as the joints, in particular, a long period must elapse before vascular action will be sufficiently elevated to supplant or modify the nervous irritation, whose augmentation being progressive, must necessarily amount to a high degree.

The nature of the wound also materially influences its subsequent condition. When it is inflicted with a sharp instrument, the nervous fibrillæ being merely divided, little violence is done to the organization of the parts, consequently the irritation and vascular action are sooner evolved. In gun-shot wounds, on the contrary, the vitality of the part acted upon is totally destroyed, no pain is at first experienced, and its absence always proportionate to the length of time requisite for the development of arterial action. In lacerated and contused wounds, the excessive pain arises from the violence of rending or bruising the nerves without destroying their vitality.

Cure. Inflammation being always subsequent to, and in exact ratio to the intensity and length of nervous irritation, will warrant the conclusion that the latter is the cause of the former—consequently, in proportion as we counteract the one we prevent the other; and this I shall now show to be in accordance with every day's experience, and to lead to the only proper plan of treatment.

In a curative point of view, all wounds may be divided into three stages, viz. the *irritative*, the *inflammatory*, and the *suppurative*. The second is consecutive to the first, and the third to the second; therefore the last two may be moderated, or totally prevented, by obviating the *first*.

The indication of cure in the first, or irritative stage, to which I am limited, is, as formerly observed, "*to raise the action of the vascular system of the parts concerned, sufficiently to induce a change in the nerves capable of supplanting the morbid process.* The sooner and the more effectually this is accomplished, the less, in every instance, will be the subsequent inflammation. The means used to excite vascular action, and thus to fulfil the indication, consist of stimuli variously applied. The most common of these are diluted alcohol, or common spirit and caloric. Wounds of every description cannot be kept too warm in this stage. When any application can be made to the divided surfaces, the parts should be immediately and thoroughly wetted with ordinary spirit, previous to dressing. One application and a subsequent warm dressing to incised wounds in vascular parts, will keep up a sufficient action; but in parts less vascular, even incised wounds require more stimulation, and it is necessary to keep them constantly wetted with warm spirit several days in succession. In all capital operations, instead of warm water alone, spirit and water should be used for washing, and the parts should be well enveloped in flannel *until* arterial action is fully evolved: but punctured, contused, and lacerated wounds, demand still more imperiously the constant and unremitting stimulation, either of spirit, or caloric, or of both conjoined. It is an egregious mistake to suppose that all lacerated wounds must necessarily suppurate, as I can truly testify. Mrs. L. had the back of her hand struck by the blunt edge of one of the timbers in a piece of machinery, which tore up and reflected back a triangular patch of skin, the base of which extended quite across the wrist, the apex reaching the first joint of the middle-finger. The skin was replaced, and secured by adhesive plaster, and the whole covered by a thick pad of cotton, and loosely bandaged. The hand thus dressed, was kept constantly wet with warm proof-spirit, and the dressing was permitted to remain on until the tenth day, when it came off, leaving the wound completely healed, tumefaction nor suppuration having ensued.

Curative means are too often inadvertently resorted to instead of preventives, under the preposterous idea of counteracting a condition which does not in reality exist. Thus to prevent inflammation, wounds are sometimes dressed lightly, or subjected to cold sedative washes, or suffered to remain long exposed to the cold air: the action of the vessels being kept down, the irritative stage is thereby prolonged, and a most violent inflammation is the effect of such a blunder. Parts so circumstanced, are justly said to have taken cold. Hence the rationale of Latta's observation, that "even in this climate, wounds are attended with less topical inflammation in summer than in winter."

In punctured and gun-shot wounds, it is often impossible to apply stimulants directly to the divided surfaces; consequently in all such cases we must trust to caloric alone; and this may be communicated by stupes, fomentations, or poultices. These, the choice of which will depend on circumstances, should be unremittingly applied until inflammation be wholly prevented, as it may be in most punctured wounds, or suppuration established, where that process is inevitable. It is a matter of little moment of what materials these consist, provided they are unirritating, and well charged with caloric. By this plan, excessive inflammation, with all its train of evils, may be averted.

Tetanus.

Although the manifestations of tetanus are confined to the muscular system, yet it is a point on which all pathologists agree, that the disease is essentially a resident of the nervous texture. "It has been shown," says Flourens, "that the immediate cause of muscular contraction particularly resides in the spinal marrow and nerves." The phenomena of the nervous system seem, at present, to be receiving a great share of attention. C. Bell, Magendie, Flourens, and others, appear to be daily shedding fresh gleams of light on this dark and intricate subject: yet it must be confessed, that the physiology of the nervous tissue is still, and perhaps ever will be, enveloped in mystery.

Notwithstanding tetanus exists solely in the nerves, their peculiar condition or change of function giving rise to the morbid process, is yet undiscovered. It has been supposed to arise from an inflammation of the meninges of the spinal marrow; but Dr. Carmichael in his dissections could not discover any morbid appearances either in the cord or its meninges. As several sorts of actions are admitted in the nerves, that which constitutes this disease is certainly irritative to the muscles, and results, according to the greatest mass of evidence, from a deficiency of arterial action, more especially in the part in which the disease originated, connected with a high degree of general irritability. This doctrine has been more particularly enforced by Latta, and our illustrious countryman, Dr. Rush.

Cure. The indication of cure in this disease, does not differ from that of irritative nervous diseases in general, already laid down. Alcohol, opium, wine, bark, tinct. canth., spts. turpentine, have all been severally or jointly employed for the purpose of overcoming the nervous irritation. "From the general failure," observes Dr. Carmichael, "of the plans hitherto employed, I shall feel no hesitation in giving a full trial, in such cases of tetanus as may next happen to come under my care, to alcohol in any of its various combinations, ether largely diluted, both in the form of draught and enema, and combined with opium." Mr. Latta's practice consisted in endeavouring to excite a general vascular excitement by tinct. opii at first, and then to have it kept up by large does of bark and wine, and to raise an inflammatory action in the wound. As for the local vascular action, it can have little or no effect in removing the disease; for although the affection originated in the wounded nerve, the morbid process is diffused throughout the whole nervous tissue, of which the wounded part is only a minute portion. Were this local stimulation moderately adopted from the beginning, I am induced to believe tetanus would be unheard of. "Our first care, therefore," says Latta, "should be, in warm climates, or in cases where we have reason to fear a tetanus, to dress the wound in such a manner as to bring on the requisite inflammation," or "as much inflammation as is *consistent with resolution.*" By inflammation, is here meant not a morbid process, but as much vascular action as is sufficient to overcome the irritative nervous process.

It will be seen at a single glance, that all the means here recommended, have a direct tendency to fulfil the indications of cure formerly insisted on in irritative nervous affections; and show, in a twofold point of view, the necessity of early adopting and rigidly enforcing the plan of treatment recommended in the section on *Wounds.*

Nervous Mercurial Irritation.

Besides the vegetable, there are several mineral agents capable of producing nervous irritations, independently of vascular action or organic derangement. The most remarkable of these are *lead* and *mercury*. The appalling effects which sometimes arise from the use of lead, seem to restrain the incautious use of that article, except in hydrophobia, in which enormous doses have been recently administered with the most flattering results. Mercury, however, is a most favourite remedy, fulfilling more indications than any article of the materia medica, since the most imposing authority is not wanting to prove it a stimulant, tonic, sedative, antispasmodic, emmenagogue, &c. &c., besides possessing minor properties almost *ad infinitum.*

Notwithstanding the protean effects of the abuse of this mineral have been faithfully delineated, many more unquestionably remain to be added to the frightful catalogue; and here I must beg leave to introduce two cases, which fall within the limits of my plan.

Case first. A lad, æt. sixteen, for the removal of the psora, used an ointment containing oxymuriate of mercury. Shortly after, he was seized daily with pains in the fingers of both hands, which continued from six to eight hours, and then gradually disappeared until about the same time the next day. Although the paroxysms of pain were most excruciating, the pulse was not affected at any time, nor was there any functional derangement of the body, nor discoloration, swelling, or soreness of the fingers, but on the contrary, they were prone to be cold. The severity of the pain advanced daily, and at length became so intense, that his parents were compelled to take measures to prevent him from doing violence to his person. He found no relief from medicine, except in large doses of opium; and even this finally failed him. After two months' inconceivable agony, his sufferings began to decline, and at length left him in good health.

Case second. Mrs. H., two days after taking a cathartic containing submur. hyd., became salivated. The ptyalism soon ceased, and she was seized with severe pain in paroxysms, beginning about 7 P. M. and continuing about five or six hours. It was seated in both sides of the face, more towards the angle of the jaw than tic doloureux, but in other respects resembling it—except that it was more intense, resembling, as she expressed herself, lightning flashing up from her jaw. After going the round of ordinary remedies, local and general, for two months, she was suddenly relieved by an emetic every evening, given at the moment the paroxysms commenced. About 20 grs. of pulv. ipecac. were administered at a dose, and this was followed by a decoction of quassia every forenoon, combined with the carb. pot. The emetic, I presume, by its sudden impulse on the nervous system, effected a change in the morbid condition of the nerves concerned, whilst the tonic supported the natural powers of the system, and thus prevented the evolution of the irritative action.

(*To be continued.*)

Art. II. *On the combined administration of Nauseating and Purgative Medicines in cases of difficult and suppressed Menstruation.* By Andrew Hamersley, M. D. of New-York.

Of all those various sympathies existing by virtue of the animal economy, there are perhaps none which present themselves to the medical practitioner under more interesting circumstances, and claim more imperiously his minute regards, than those which relate to the functions of the stomach and uterus. The occasions are so frequent which remind him of this sympathy, and forcibly suggest to him a recurrence to it, that he is almost without excuse if he fail in his administration of remedies to bestow on it a correspondent regard. As a provision of nature, this sympathy serves to affect us with a strong sense of the sufficiency of her purposes, when her abilities are exerted to produce phenomena connected with and dependent upon the organization of the animal frame. The womb, with its appendages, in a manner remote from the application of such remedies as we discover, by reasoning and experience, to be effective of curative results, when applied to particular maladies of other organs, is, by means of this striking sympathy, rendered capable of being acted upon by such means as may seem appropriate to the control of its irregular conditions. Except when, under the excitement of conception and consequent impregnation, these sympathies attract comparatively but feeble notice. No sooner, however, is this organ called upon to perform these its highest intentions, than the stomach begins to evince its correlative influence: it is at once constituted an index, by which to judge of those changes which are taking place within the uterus. The morning nausea, with occasional vomiting—an inability to digest the grosser viands—frequent heartburn,—all these stand forth, and declare themselves the interpreters of Nature's doings.

The stomach seldom becomes for a long time excited, without producing more general impressions. Thus, in the more advanced stages of gestation, we have the ordinary exhibitions of nervous irritability, not unfrequently a host of imaginative forebodings—and, with very few exceptions, that indescribable, but no less singular expression of visage, which tells of a female about to become a mother.

From all this, it must be most apparent that any morbid conditions affecting this viscus, must tend most essentially to impair the health of the female. The experience of the novice in the practice, as well as that of the tyro in the study of medicine, are each sufficient to warn him of such consequences, and teach him duly to appreciate all that appertains to the healthy structure and morbid changes of this organ. When called upon to administer aid in every case of complicated disease invading the female habit, has he been properly instructed to reason and observe, he *cannot* forget to take into his most serious consideration, how great and how important are the influences it exerts on the system. No superficial prescriptions, no hasty glance of symptoms, and as hasty and no less incorrect formation of opinion, will here suffice him. There are certain irregularities frequently observable in the state of this organ, which manifest so intricate, and sometimes such opposite symptoms, that the judicious practitioner is affrighted at the assemblage, and hardly dares rely on the resources of his own art. We may safely venture to assert, that no woman can long labour under either of those conditions of the uterus specified at the head of this article, without soon feeling, whatever her delicacy may prevent her from expressing all that sickness at heart, which her pallid lips—her emaciated form—her half-vibrating, half-concealed pulsations—her cheeks, now flushed with the glow of hectic anxiety, now pale with the languor of dejection—her whole visage marred with longings after health,—tell, in tones strong enough to excite the deepest interest, and the most vigorous exertions of skill. The physician, we are to presume, is seldom, or perhaps never, to despair of affording the requisite relief. If he cannot restore health, he may perchance arrest the ravages of former disease, ameliorate present symptoms, and ward off future despair. That he should frequently himself sicken at the idea of having recourse to the boasted uterine remedies, which either popular opinion, or treatises of the materia medica extol, as the proper weapons of his profession, with which to encounter this insidious form of disease, we are not at all astonished. Eminently successful must have been that physician, who has often employed them, and not often found them vain. But our astonishment must not cease, if, upon probing the matter, we find these medicines rather calculated to allay urgent and harassing symptoms, than to strike at the seat of the disease, which, if they reach not, they do but accomplish half their purpose. It is to this circumstance that we are to ascribe that host of nervines, which the routine prescriber so sagely enjoins upon his patients, who, by long continued uterine disturbance, are agitated in every nerve. Of all the curses, which a too sedulous attention to the names and symptoms of disease, as they are portrayed in books, and too little regard to their source and origin in the human frame itself, has entailed upon our profession, this is doubtless one of the greatest. Nay more: till we become emancipated from these shackles, and learn to study disease in the school of nature, and correct philosophic observation, we shall find that, in place of advocating and professing a liberal and a dignified science, we are but reducing it to the level of the empiric, and derogating from its vital and essential principles. To adhere to these principles, is to reason and to think; to disregard them, is to hazard the best interests of our profession at the shrine of literary idolatry, and sacrifice upon the altar of great names, still greater and more enduring truths. To argue to the subject under consideration.—The unfortunate female who labours under one of these characters of disease, and whose gastric organ becomes secondarily affected, and in its turn creates an extensive train of nervous phenomena, is led to hope a renewal of those functions so necessary to the integrity of her animal operations, and the quiet of her mind, from accumulated doses of musk, camphor, and assafœtida. So strong a hold have these remedies obtained in the profession, that in almost every system of materia medica, they comprise a large portion of that class of medicines entitled *emmenagogues.* But to the rational inquirer, such methods of treatment must appear totally opposed to those considerations of such diseases which he has been taught to imbibe, as the result of close observation and scientific research. His mind becomes deeply impressed with the importance of regarding that distinction between an evolution of symptoms, subsequent upon, and a morbid character of change essentially connected and contemporaneous with the disease itself, enjoined by the established principles of the healing art, and the deductions of enlightened experience. Thus chastened in his views, he seeks a more intimate knowledge of the disease he is called upon to treat. He inquires into the alterations which have ensued, either immediately or remotely, upon the original malady. Not content with this, he investigates the sympathies which have been induced, and endeavours to arrange them in his theory, and *combat* or *enlist* them in his practice, as their importance and character shall demand. Thus guarded in his premises, he can hardly err in his conclusions; and if he be unable to reach the immediate seat of the disease, he will never neglect to avail himself of its immediate sympathies, whenever they may evince themselves with sufficient force, or be capable of feeling the power of medicine. By these means he is instructed, that any exhibition of remedies which merely serve to palliate the more remote symptoms, can never be available to the extermination of the evil. As in the instance under consideration, he would never place his reliance upon an antispasmodic bolus or carminative pill, while a more extended capacity for detecting disease shall furnish him with such treatment as may suit the real exigency of the case. Relying upon these indications, his chance of success becomes proportionately enhanced, while he enjoys the great gratification of rendering his practice subservient to principles, and not to the dogmas of established routine. Before advancing to the express purpose of these remarks, there is one other crude practice formally adopted in the treatment of uterine affections, which it will be of conseqence to notice. To suppose a case of amenorrhœa, where the physician is not commonly summoned till the patient experiences that aggravation of symptoms attendant upon the period of periodical evacuation, it instantly occurs to him, more, however, it is to be feared, from the force of a lesson, than from the suggestion of reason, to substitute some topical evacuation, as vicarious of that which takes place in the healthy operations of the system. So far as this affords present relief, and perhaps obviates effusions which might otherwise ensue, and prove eminently injurious, the prescription is sufficiently judicious. But who has not observed the every-day practitioner, having completed this task, most imperiously proclaim to the sufferer, that naught else can be done on his part, and at the same moment cautiously enjoin upon his patient, the next time, as he emphatically expresses it, to summon his assistance, when his lancet will again perform its required service? No queries are made as regards the length of time the malady has continued, no interrogations in reference to the general health, none of those minute inquiries which the wise physician never fails to institute. The menses are arrested, the patient must be blooded. This too is called orthodox practice. If it be so, its orthodoxy must needs be derived from the creed of vilest empiricism. This practice, among a certain class of practitioners, has grown into an established habit, and it may perhaps even be compared to that barbarity which influences the accoucheur, after having mechanically assisted the parturient female, to leave her to linger or to die. From this it necessarily ensues, that the uterus, so long unaccustomed to its own peculiar discharge.

looses its wonted tone and stimulus. It cannot be expected, by the well known laws of the animal economy, that impregnation can ensue in an organ, the exercise of whose powers is for so long a period intermitted. Under this aspect of the case, the physician who contents himself in these instances by substituting a vicarious evacuation, inattentive to those measures which, properly enforced, enable this viscus to perform its own functions, become the cause of great and too often irreparable injury. It does not come within the purview of the present observations, to unfold that general course of treatment, which in a great majority of instances, is suitable to bestow on the uterus the capability of exerting its own powers. Such treatment must always be modified by the habit of the patient, the present state of debility or vigor, and other attendant circumstances.

I have thought the preceding observations pertinent, if not requisite to the exposition of the following case, which came under my medical superintendence at the time specified, and to such suggestions as it may practically afford.

September 2nd, 1823. I was this day requested to visit Miss B——, aged about twenty, habit rather plethoric, pulse slow and regular, but denoting fulness of the vascular system. Bowels regular—appetite good. Two years previous to this period, her catamenia were suppressed, and so continued for two months. This the patient attributes to undue exposure to cold. Since this event, they have occurred with regularity, but at each time in extremely moderate quantity. She had also for some time past experienced some considerable degree of abdominal effusion, accompanied with œdema of the face and limbs. At each return of those periods when her usual slight uterine discharge took place, she would suffer an increase of these separate effusions, with the ordinary symptoms of head-ache, pain in the loins, as incident to these disturbances. On my first visit, I discovered no other tumefaction but that of the abdomen. The patient, however, complained of some difficulty of breathing upon ascending an eminence, or while enjoying the recumbent posture. These circumstances gave me cause to apprehend a tendency to thoracic effusion; a suspicion rendered probable by the disposition her system had already evinced. To all this were added occasional feelings of great weakness. She had taken no other remedy but an infusion of horse-radish, mustard, and white-oak bark in cider, of which she reported herself to have drank two gallons without benefit.

℞.	Rad. Colomb.	
	Sup. tart. potass.	āā. ℥ss.
	Rad. Quass.	ʒij.
	Aq. Bullien.	Oj. M.

Fiat infusum de quo capiat dua cochlearia magna quat. in. die.

September 6th. Swelling of the abdomen rather lessened—conceives the medicine to have been of some service. Pulses, appetite as before. Repet. Med. September 10th. Evidently improved. No visible signs of swelling about the abdomen or feet. Pulses less full—complains of borborygmi. Repet. med. addend. coch. mag. un. rad. cochleariæ armor. September 18th. Appearance not so favourable as at last report—has omitted the medicine for some few days past, in consequence of not having retained the prescription. One menstrual period has also passed by since my first attendance, which was concealed by the patient, and marked by the aggravation of symptoms hitherto noticed on these occasions. Other circumstances as before. Repet. medicam. September 29th. Visited patient, but found her not at home—pursuing her remedy. October 1st. Improved, though with some slight swelling of the abdomen, none of the lower extremities. Expects the return of menstrual evacuation in a few days. October 4th. This was about the period of menstrual return; but as yet no symptoms of it have occurred, or any increase of swelling. Drew from the arm twelve ounces of blood, which produced deliquium, and ordered ten grains of ergot to be taken *instanter*, which failing to affect the uterus, the same dose to be repeated on the ensuing morning. October 8th. General appearances much improved. Has taken both powders of ergot, but without producing the proper discharge, although the hitherto attendant symptoms of increased swelling have not shown themselves. Repet. infus. ut. antea. October

21st. Has suffered for a day or two past head-ache, with pain in the loins and back, the çommon signs of suppressed menstruation, but unaccompanied with any dropsical effusion.

It is presumed that the patient is again labouring under an effort to menstruate, and that one period has passed by without any of the previous concomitant symptoms. Pulses at this time calm and regular. Has assiduously continued her tonic drink. ℞ Pul. purg. ℨss. cras mane capienda. Oct. 25th. Took the medicine last prescribed, which produced *much sickness, and plentiful discharge from the bowels.* She affirms her health to be in a materially more improved condition than for two years past, and the uterine functions are duly restored. We proceed to notice some few particulars connected with the foregoing case. The serous effusions referred to, were doubtless the efforts of nature to institute an action in some degree correspondent to that which had been morbidly interrupted, and is moreover to be considered as con nected with the plethoric habit of the patient. Under such circumstances, experience and reason authorise us to expect such results. In place of such effusion, we, however, sometimes observe sanguineous discharges from various parts, by hæmorrhage from the lungs, nose, &c. But it is not in every instance that nature is herself competent to such exertions of the *vis medicatrix*. This it is which has induced me to regard this state of things, as also *connected with the plethoric habit of the patient.* But where such plethora does not exist, nature is less capable to establish remedial efforts, and in lieu of such effusion, the nervous fibre sustains a considerable degree of increased *irritation*, the muscular, of increased *relaxation.* Hence the whole complication of nervous phenomena before adverted to, and all that peculiar debility which marks the unfortunate sufferer. To this is ere long superadded a variety of cachectic symptoms, which frequently bewilder and astonish the medical attendant. To pursue the plan of the empiric, and adopt a course of repeated bleedings in such instances, would tend neither to increase the reputation of the practitioner, nor prolong the life of the patient. An attention to the whole state of the system, a judicious and well regulated prescription of tonic medicines, the injunction of regular exercise, strict regard to such means as preserve and invigorate the tone of the stomach, and ensure a due action of the functions of the alimentary canal, as well as those which especially *excite the sympathetic action of the uterus,* are alone sufficient to counteract such unhealthy influences. By a reference to the progression of symptoms, as above related. it will be seen, that about two weeks after the period of venesection, which the patient presumed to be that of her regular evacuation, she was again attacked with the ordinary premonitory signs of menstruation. It is difficult to explain the revolution of symptoms which frequently occur in these embarrassing forms of disease. I should be tempted, however, in the preceding instance, to view this return of symptoms as indicative of renewed efforts on the part of the uterus, to resume its proper secretions, particularly as occuring in a habit endowed with sufficient energy to render the result, under proper management, favourable.* It is in some degree confirmatory of this supposition, that these discharges had been anteriorly, with the exception above detailed, regular in the time of their appearance, though scanty in amount. The absence of any accompanying dropsical effusion, though no bleeding had been premised, as in the previous instance, would seem to encourage such opinion. The exhibition of any remedy under such circumstances calculated to excite the due return of the menstrual discharge, by affording a stimulus to the uterine organ, would appear perfectly accordant with correct physiological principle. It is possible, indeed, that this evacuation might have occurred without the employment of any such means; but as the irregularity of its appearance had been of long duration, and the attendant signs existed for two or three days without such occurrence, we, I should presume, would be perfectly authorised to attribute the immediate result to the use of the purgative medicine. When the prescription was enjoined, it is well to state, I was principally attentive to the discharge which would be thereby procured from the alimentary canal, and the sympathetic effect on the part of the uterus. It did not then occur to me, that this sympathy might be more fully exerted by calling in aid the action of the stomach, in the production of nausea. This fortunate consequence did, however, ensue, for the patient particularly referred to her medicine as creating much sickness. It is also to be allowed, that purgatives of a more stimulating character would, in the majority of cases, be more suitable than such as were here had recourse to. The more especial object of these remarks is to solicit attention to the advantages which, from physiological principle and practical experience, we may fairly anticipate from the combined use of remedies which nauseate the stomach, and purge the intestines, in various cases of uterine obstruction. We are well aware that many purgatives create nausea previous to and during the time of their operation, but not generally, it is apprehended, in a degree sufficient for this purpose.

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* Could any thing be here attributed to the previous employment of the ergot in tending to effect a healthy sensibility of the diseased organ?

The selection of the particular combinations will be best regulated by the discriminating physician, so as to meet the exigency of the particular case. In every disease marked by the occurrence of a certain routine of symptoms at certain intervals, which afford to it its distinctive character, our notice should always be in part directed to the general constitutional appearances, which are effected by the local malady, as well as to the direct seat of the organ or spot implicated. These two indications serve to guide us in the teatment of all such affections.

In epilepsy and intermittent fever, both frequently depending upon a derangement of the same viscus, we strictly adhere to this principle. We endeavour, by appropriate methods applied near the period of the expected occurrence of the paroxsym, to obviate its re-appearance. Not content with this, we are taught, and very justly, to institute such other means during the intermission, as will repair the impaired tone of the system. Now, it has so happened, that in attempting to alleviate uterine obstructions, we are but too apt to lose sight of this *methodus medendi*, which we are wont to enforce in analogous instances. This analogy, in reference to intermittent fever, is sustained by the following considerations:—Every secreting surface, endowed with a sensibility closely allied to its inherent structure, and varying in degree in proportion to the importance of the secretion itself, and the character of the relations it sustains with the general operations of the animal economy, is, of course, liable to actions irregular and depraved. Of all the morbid influences to which such surfaces are exposed, none are of so predominating a character as those which result from atmospheric vicissitudes. In intermittent fever, an exposure to such vicissitudes is followed by an interrupted action of the cutaneous secretion, in uterine obstructions, of that secretion which is peculiar to this organ. To prevent the return of the paroxysm, we in the one instance unlock the pores of the skin through the medium of the stomach; in the other, we excite the due action of the uterus by the instrumentality of the same medium. To pursue the analogy farther. In the intermissions between the paroxysms, we administer such general remedies as the state of the system may seem to require. We should act wisely in assimilating our practice in one other, and that, as has been already exemplified, by no means an unimportant particular, in reference to these two diseases, viz.: of the institution of such means just previous to the occurrence of the uterine paroxysm, as will possess a tendency to reproduce the deficient or absent secretion. Such is the plan we adopt in order to obviate the checked cutaneous secretion in intermittent fever. A few grains of tartarised antimony given for one or two hours in anticipation of the chill, will, by the production of nausea or vomiting, unlock the constricted pores of the skin, and restore to it its proper function. The same method of treatment, we have sufficient grounds for believing, will, in many instances, produce a corresponding effect upon the uterus. Here also it may sometimes be advisable to excite emesis, in place of protracted nausea, while we also evacuate the alimentary canal.

We then in both cases, as before observed, in the interval, employ such remedies as are calculated to fulfil general and appropriate indications. By the enforcement of this plan, we are acting in accordance with the impulses of nature, and the dictates of the soundest physiology—the only guides which can ensure to us success in the legitimate exercise of our profession.

Note. It has been deemed advisable, in connexion with the statement of the foregoing case, to advert briefly to the use of a particular remedy therein specified. Reference is had to the ergot. Its use in the above instance was suggested by its acknowledged efficacy in aiding the operations of the uterus in cases of parturition. From hence it was presumed that its administration might prove serviceable in other instances, where a powerful stimulus was required on the part of the uterus. The issue of the trial, as will be observed, was not favourable. I can, however, aver, from the result of many other trials, that complete success has been obtained in diseases of a similar character, where the same remedy has been employed. Much has been said in opposition to this remedy, as producing effects of too violent a character on the uterus, and being consequently unsafe in unskilful hands. Every objection against the employment of a remedy founded on such grounds, should be met by one general reply. Were we to discard from the profession every remedial agent capable of effecting highly detrimental results, unless guarded in its administration by the dictates of a well regulated judgment, we should most sadly circumscribe the list of those means, by which we not unfrequently attack and subdue lurking maladies. The objection, moreover, presupposes a want of requisite ability on the part of his medical brethren by him who urges it. It is the enlightened exercise of judgment, which establishes the distinction between the well educated and liberal physician, and the boastful assertions, and no less indiscriminate practice of the wily mountebank. But it has been, moreover, pleaded, that the bestowal of approbation on this medicine by the faculty, would tend to render its use frequent among those who, actuated by various motives, would be desirous to procure abortion. To this it may be rejoined, although we allow the argument to possess some weight, that wherever such intentions are maintained, neither this, nor any other means can be adopted, without prejudicing to an alarming degree the life of the parent. It is not my design to enter into a defence of this remedy, but only to invite attention to the benefits it may convey, when employed in the class of diseases which forms the subject of the preceding remarks. Advantage will in these instances be derived from administering it in conjunction with some stimulant cathartic; and for this purpose, I have frequently combined it with powdered jalap in the following proportion:

Pulv. Ergot
Pulv. Jalap, aa. gr. xv.

We here obtain the double advantage of the nauseating effect of the ergot, and the purgative quality of the jalap, and thus administered about the expected period of menstrual evacuation, it has, even after a long continued irregularity of this function, succeeded in effecting its healthy renewal. The above prescription, it may be proper to remark, must be so modified, as to assort with the constitution and general temperament of the subject. Should subsequent attempts made with this medicine be followed by equally advantageous results, it may form the subject of future communication.

Art. III. *An Account of the Salt Springs at Salina, Onondago County, State of New-York; with a Chemical Examination of the Water, and of several varieties of Salt manufactured at Salina and Syracuse.* By Lewis C. Beck, M. D. Professor of Botany, Mineralogy, &c. in the Rensselaer School.

[Read before the Albany Institute.]

The Salt Springs at Salina, whether considered as a source of revenue to the State, or of wealth to its inhabitants, are deserving of the highest consideration. It is very desirable, therefore, that we should possess the most accurate information concerning their chemical composition and their geologi-

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[*] The ergot can influence the uterus only through the medium of the stomach, and in this manner only can it be said to act specifically.

cal relations, as well as those artificial causes which affect either the quality or the quantity of the salt which they produce. Their origin should also be inquired into, with all the lights that can be afforded by experiment and observation. This indeed appears to me to be the most important object embraced in such a course of investigation. If the facts which have already come to our knowledge, are such as to lead to the belief that these springs are formed by the solution of rock salt, the State, as well as individuals, might with less risk incur the expenses attendant upon a search for this useful mineral. But if on the other hand, these facts go to disprove the existence of rock salt, all these subterraneous explorations may, at least for the present, be suspended.

It occurred to me that an examination of the Salt Springs, embracing the above objects, but more particularly their chemical composition, would prove of general interest; and the more so, as the notices of them hitherto published are so extremely imperfect and unsatisfactory. To effect this purpose I have several times visited these springs; made preliminary experiments upon the spot, and completed the analyses upon my return. I have as much as possible studied accuracy and precision, and have seldom depended upon the bare assertions of others. Much assistance, however, has been derived from the papers heretofore published, on the salt springs and manufactories of Salina, and from various reports made upon these subjects to the Legislature of our State. Among the most valuable of these are, "A memoir on the Onondago Salt Springs, and the Salt Manufactories in the States of New-York," by the late Dr. Benjamin Dewitt.* Manuscript reports to the Legislature by Drs. Noyes and T. Romeyn Beck:† and, "An Essay on Salt," by Dr. Jeremiah Van Rensselaer.

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* Transactions of the Society for the promotion of Agriculture and the Arts, vol. I. p. 268.

† The communication of Dr. T. R. Beck, was made in answer to sundry queries of a committee appointed by the Legislature of 1821, of which Simeon Ford, Esq. the present superintendant of the State works at Salina,

Description of the Springs.

The Salt Springs which I am about to notice, are situated in the State of New-York, at the head of Onondago Lake, in the county of the same name, about one hundred and thirty miles west of Albany.

This lake is about six miles in length, and one mile in width, and although surrounded on every side by the strongest salt springs, its water is perfectly fresh in every part of its surface. The brine being specifically heavier than the fresh water, falls to the bottom, and can be obtained from thence by sinking a closed bottle, and then withdrawing the cork.

The borders of Onondago Lake are usually marshy, and sometimes quite heavily timbered. At Salina, the marsh is of considerable extent, and many plants are observed to grow in it, which are also found in the salt marshes on the sea coast, and not elsewhere; as *Salicornia herbacea L. Salsola salsa, Mx. &c.* This fact appears to strengthen the opinion adopted by Decandolle and others, that vegetation is in every case the product of the joint influence of temperature, soil, and the particular composition of the moisture of the earth.* Upon the theory of Linneus, that all plants have descended from a few parent stocks, and that they have been distributed from one point on the surface of the earth to all its parts, we should be at a loss to account for the existence of these plants in situations so remote from each other, when they do not flourish at any intermediate points.

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was chairman. This gentleman carries into his office, a scientific and practical knowledge of the subjects connected with the manufacture of this important article, which must be productive of very beneficial results. The answers to these queries contain a very comprehensive view of the methods of manufacture pursued in foreign countries, and many useful suggestions, the recent adoption of which has had the effect of greatly improving the quality of the Onondago salt.

* Elements of the philosophy of plants by Decandolle and Sprengel. p. 283

Among the vegetable productions with which this region abounds, I noticed a rare species of *Ranunculus*, *R. cymbalaria* of Pursh, and which is characterized as follows:—*Root* perennial. *Stem* filiform, creeping, sending out roots at the joints. *Leaves* on long petioles, somewhat reniform, obtusely 5-toothed, cordate at base. *Peduncle* radical, 4 to 6 inches high, solitary, 2—5 flowered. *Flowers* pale yellow, small. *Petals* linear. *Fruit* oblong. Flowers in July.

It is in the marsh just noticed, that the most valuable salt springs are found. Those which are most strongly impregnated are at Salina, although inferior ones are quite numerous in various parts of the marsh. They issue from the black soil of which it is composed, by small orifices, and at the distance of a few feet from the surface. Reservoirs are constructed at different places near these springs for the convenience of the manufacturers; and from these, by the agency of pumps, the water is conducted through pipes to those works which are at a distance from them.

Geological situation.

The surface of the valley of the Onondago, is several feet below the level of the adjacent plains. The first three or four feet consist of a black mud, which is very soft, and is made up for the most part of decayed vegetable matter. Below this is a stratum of earthy marl, from three to twelve feet in thickness, and containing several interesting organic relics, chiefly shells; of which I collected the following: viz.

Cyclas postumia,
Planorbis trivolvis,
Planorbis bicarinatus,
Planorbis campanulatus,
Melania virginica,
Helix perspectiva, *Say.*
Helix tridentata,
Helix thyroideus,
Helix abolabris,
Unio ventricosus,

together with a new species of *Paludina*, which had been previously discovered by my friend Mr. James Eights, and which will be noticed elsewhere.

A specimen of this marl yielded, upon a careful analysis, the following results in one hundred grains.

Carbonate of Lime - -	83 grs.
Silex - - - - -	10
Alumine - - - -	7
	100

Every where imbedded in the marl are to be seen nodules, masses, and even continuous strata of indurated clay, containing fragments of decayed or charred wood. It is often so solid as to present the appearance of a rock formation, and below the marl it alternates with layers of quicksand, and continues, according to Mr. Byington, to the depth of eighteen feet.* After this we reach a conglomerate, composed of rounded pebbles from one to two inches in diameter. It is probable that this continues for some distance, although it has hitherto been explored but five or six feet.

According to Professor Eaton, the saliferous rock forms the floor of all the salt springs of the canal district. This rock is about 150 miles in length, and something more than twenty miles in breadth on an average, extending from near Little Falls, to the west end of Lake Ontario. It descends like an inclined plane to the Genesee River, where it is about two hundred and fifty feet lower than at the ridge between Little Falls and Utica, where it crosses out and terminates.†

Before leaving this part of my memoir, I should notice a remark which I find in Dr. Van Rensselaer's Essay on Salt. It is, that "abundance of gypsum has been found associated with the salt in the same manner as has been observed in Europe."‡ Observation has not satisfied me of the correctness of this assertion. Indeed, as Mr. Eaton remarks, gypsum is never associated with the salt formation in the canal district. "I am aware," says he, "that it has often been asserted, that gypsum and salt are two constant associates in the State of New-York. But there are certainly three distinct strata, including the iron formation, between those which contain the gypsum and the salt where they approach the nearest, between Oneida Lake and Genesee River."*

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* Document B. accompanying the report of the Commissioners appointed to perform certain duties relative to the salt springs in the county of Onondago, made to the Legislature March 18th, 1825.

† Geological and Agricultural Survey of the district adjoining the Erie Canal. Part I. p. 103—4.

‡ Essay on Salt, p. 31.

Origin of the Springs.

Several theories have been suggested to explain the origin of salt springs. By some it is maintained that they proceed from strata, which absorbed the salt waters of the ocean while they stood over the earth. While these waters have been gradually draining down into the lowest cavity, what is left would become less dilute; and as it would constantly increase in saltness, the brine in some places would be brought to the strength necessary for crystallization, and hence rock salt would be formed. According to this theory, solutions of rock salt are not admitted for the supply of these springs, which last, is the commonly received opinion with regard to their formation. This opinion receives great support from the fact, that brine springs are usually found reposing upon strata of rock salt. In our state, however, no rock salt has hitherto been discovered; and from the fact, that the saliferous rock has been accurately examined to a great depth, Mr. Eaton is led to infer that it does not exist. He suggests the idea, that this rock and some of the overlaying strata contain the elementary materials, and "that the brine springs are the daily productions of Nature's laboratory."† This I observe is also the theory of M. Patrin, who supposes that salt is daily formed in the rocks or springs. The Chevalier de Bray, in his "Voyage en Tyrol," is of Patrin's opinion, and cites the numerous abandoned galleries which are narrowed by the efflorescence of salt.‡ For the purpose of test-

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[*] Canal Survey, p. 113.

[†] Canal Survey, p. 109.

[‡] Mineralogie appliquée aux arts, par C. P. Brard. vol I. For extracts from this work, I am indebted to Dr. Dekay of New-York, a gentleman well known to the scientific world. I have derived much assistance in the

ing the correctness of this theory, so far as it relates to the springs at Salina, I have analyzed specimens of the saliferous rock from different localities, and in none have I been able to detect the elementary materials of muriate of soda. Other considerations appear to me to render such a supposition altogether improbable. 1st. The saliferous rock is found in various parts of the United States unaccompanied by salt springs. 2d. If this rock contained the elementary materials of muriate of soda, in such proportion as to form these brine springs, we should every where, or at least occasionally, see it covered with crystals of this salt; but this is not the case. 3d. If the saliferous rock contains muriate of soda, or its elements, it has been incorrectly described by all our writers on geology, who assert that it consists essentially of siliceous particles, united by an argillaceous cement.

Is it not more rational to refer the origin of these springs to a stratum of rock salt? The circumstance of its not having been heretofore discovered, although several strata below the saliferous are exposed on the canal route, is, in my opinion, no argument against its existence; for it may be, and no doubt is, confined in its locality to the vicinity of the springs. The question is far from being settled; but of all the theories which have been suggested, the latter appears to me the most plausible. And if the facts which we possess are not yet sufficient to prove its correctness, it is at least free from those objections which bear with so much force upon all the other explanations which have been attempted.

Chemical examination of the brine.

This was conducted with a view—1st, to ascertain the nature of its ingredients; and 2d, to determine the proportions of these ingredients, and their combinations.

To fulfil the first intention, the following experiments were tried either at the springs or upon portions of the water ob-

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present undertaking, from a perusal of his manuscript collection of "Facts and Observations drawn from various writers on the subject of Salt."

tained from thence, after having been carefully sealed up in bottles.

I. Infusion of litmus was *reddened* when poured into brine recently taken from the spring, but this effect was not produced when it was gently boiled, or when it had been exposed for some time to the air. Hence I inferred the presence of free carbonic acid. This is moreover evident by the bubbles which rise to the surface of the water, at which the gas can be collected into receivers and submitted to experiment. It is formed at the bottom of the spring, and passes through the water, but as Dr. De Witt correctly remarks, " does not appear to incorporate with it, or at least not in any perceptible degree; for the brine has none of that sparkling brightness, nor the pungent odour, so characteristic of carbonated waters." On this account I made no experiments to ascertain its quantity.

II. As the above trial also satisfied me that no other uncombined acid existed in the brine, I was next desirous to test the presence of alkalies. For this purpose papers stained with the infusion of turmeric were suffered to continue for some hours in a portion of the brine; their intense yellow colour was not in the least affected. But upon the addition of a minute quantity of either of the alkalies, it instantly changed to a reddish brown.

III. Tincture of nut-galls and prussiate of potash were added to different portions of brine, without being followed by any change of colour. These tests would have satisfied me that no iron was contained in the water, had I not observed that Dr. Noyes, in his analysis, states oxide of iron to be one of its ingredients.* Although not noticed by any other

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* Dr. Noyes estimates forty gallons, or three hundred and fifty-five pounds avoirdupois of brine to produce fifty-six pounds of saline extracts: of which is

Pure Muriate of Soda	51.00
Carb. of Lime coloured by Oxide of Iron	0.06½
Sulphate of Lime	2.04
Muriate of Lime	1.12½
Muriate of Magnesia perhaps.	

Van Rensselaer's Essay, p. 33.

Is it not probable that the iron, which is here credited to the brine, was derived from the kettle in which the analysis was conducted?

chemist, I thought it of consequence to make further experiments. As Mr. R. Phillips has ascertained that when iron is in a state of peroxide, lime prevents the action of the tincture of nut-galls,* I therefore added to a phial of the brine a small quantity of oxalic acid, and to the filtered liquor applied the gall-test after the manner adopted by Klaproth in his analysis of Carlsbad water, as follows: A slice of the gall-nut was suspended by a silken thread in the brine, and suffered to remain for some days, but no dark cloud was to be observed surrounding this re-agent.

From all these experiments we may safely conclude that iron forms no part of the brine at salina.

IV. Muriate of barytes produced a white precipitate which was partly dissolved by muriatic acid; hence I inferred the presence of sulphuric and carbonic acids in combination with alkaline or earthy bases.

a The following experiment proved that the carbonic acid just detected was combined with lime. A glass vessel full of the brine was boiled for some minutes; a precipitate fell down, a part of which when dried, dissolved with effervescence in dilute muriatic acid, and this dilute solution gave a copious precipitate upon the addition of oxalate of ammonia.

V. Nitrate of silver afforded a very copious white precipitate, indicating the presence of a large proportion of muriatic acid.

VI. Oxalate of ammonia instantly produced a dense white cloud, proving the existence of lime.

VII. To a fresh portion of brine freed of its lime and sulphuric acid by oxalate of ammonia and muriate of barytes, was added phosphate of soda and carbonate of ammonia; a precipitate was immediately produced, proving the presence of magnesia.

Several other experiments were tried with a view of ascertaining completely all the ingredients of the brine, but they led to no further discoveries, and it is therefore unnecessary to detail them.* As it is however stated, by Dr. McNevin, that *potash* exists in this water, and that the sulphuric acid, instead of being united with lime, is in combination with that alkali,† it may be proper to detail the experiments which satisfied me that the assertion was unfounded. This was indeed rendered sufficiently improbable by the fact that sulphate of potash is so easily decomposed by the muriates of lime and magnesia, both of which are allowed to exist in the Salina water. The occurrence of this salt in mineral waters is moreover extremely rare, and I can find no mention of it in any of the tables of their composition which I have examined. But to proceed to the experiments.

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* Analysis of Bath waters.—*Phil. Mag. No.* 24. p. 349.

a. To a test glass filled with brine, somewhat concentrated by evaporation, tartaric acid was added in considerable quantity. It remained for some time without producing the least change. But when the acid was added to distilled water, holding in solution a minute portion of sulphate of potash, a crystalline salt (the supertartrite of potash) immediately collected and fell to the bottom of the glass. The same result was also produced upon the addition of sulphate of potash and the acid to the brine.

b. Muriate of platina was dropped into a fresh portion of the brine, and allowed to remain for some time, but it gave no precipitate. This when perfectly neutral, is one of the most delicate tests of the presence of potash, and the orange-

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[*] It being perfectly well known that soda is one of the constituents of the brine, it was needless to prove it by experiment in this place.

[†] The following are the results of Dr. McNevin's analysis as quoted in the 2nd volume of the New-York Medical and Physical Journal. p. 515.

" Sulphate of Potassa	2.525.
Muriate of Lime	2.269.
Muriate of Magnesia	2.012.
Muriate of Soda	93.194.
	100.000."

The processes by which these results were obtained, have not, to my knowledge, been published; neither are we made acquainted with the precise locality of the spring whence the water was procured.

coloured precipitate which it produces, completely distinguishes the salts of potash from those of soda.

c. Thinking it possible that some of the other ingredients of the brine might affect the power of the above tests, the method recommended by Dr. Thomson was pursued.* A measure full of the water was evaporated to about one half, and lime-water added as long as it afforded any precipitate. The liquid, after filtration, was again concentrated by evaporation, and treated with alcohol, and after another filtration, with oxalic acid, carefully added to avoid excess. The water thus freed of earthy salts was mixed with acetate of lime, but no precipitate appeared either before or after the addition of alcohol, which was a sufficient proof of the absence of both the sulphate of potash and of soda. A portion of the purified liquor was also tested with the muriate of platina, but no precipitate followed.

These experiments are, in my opinion, sufficient to prove that sulphate of potash does not exist in this water; it will hereafter be made evident that the sulphuric acid is combined with lime.

I had therefore ascertained that the following substances were contained in the water under examination, viz.

Carbonic Acid, (free and combined.)
Muriatic Acid.
Sulphuric Acid.
Lime.
Magnesia.
Soda (of course.)

The second object of inquiry was to determine the proportions of these ingredients, and the manner in which they were combined. Two methods of analysis were suggested. 1st, to separate the different substances by various solvents; and, 2d, to determine by precipitants the weights of acids and bases present in the water—to suppose these united in such a manner that they shall form the most soluble salts. These salts, according to Dr. Murray, will constitute the true saline constituents of the water under examination.* But the latter method has been found objectionable in many instances, and although on the whole preferable to the former, I did not adopt it altogether.† The course which I pursued was 1st, To determine by precipitants the amount of acids and bases; and, 2d, To determine, by distinct sets of experiments, the manner in which these were combined.

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* Thomson's Chemistry, vol. iii. p. 182.

The specific gravity of the brine under examination, was found to be 1.108; which, according to the formula of Mr. Kirwan, would give 151.2 saline contents in 1000 parts of water, or 15.1 in 100 parts. In the present instance this proved nearly correct; for,

A measure of the water, weighing 1000 grains, was evaporated down with much care to dryness; the residuum being well dried, weighed 156. This served as a standard by which to compare the succeeding results.

To the same quantity of water, after being somewhat concentrated by evaporation, muriate of barytes was cautiously added until it no longer yielded a precipitate. The precipitate was washed until the water gave no cloudiness with nitrate of silver; it was then dried at a low heat and found to weigh 10.75. The addition of muriatic acid caused an effervescence, and dissolved a part of the precipitate, denoting the presence of carbonate of barytes. The whole was again washed and dried at the same temperature as before, and upon weighing it, was found to have lost 3.50. This loss may be estimated as the amount of carbonate of barytes, and is equivalent to 0.77 carbonic acid. 7.25 sulphate of barytes is equivalent to 2.46 sulphuric acid.

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* Dr. Murray Trans. Royal Soc. Edin. vol. viii. p. 205.

† Thenard, after detailing the methods of analysis by various solvents and that of Dr. Murray, remarks—

"La méthode de M. Murray est bonne, sans doute, mais je ne la crois pas meilleure que l' autre: en effet, celle-ci présente tous les avantages de celle de M. Murray, puis-qu'elle permet de connaitre isolément les quantités de bases et d' acides; elle est même plus générale en ce qu'elle ne souffre point d' exception."—*Traite de Chimie*, iv. 176.

To the filtered solution containing all the washings and again concentrated, oxalate of ammonia was added, and at length drop by drop, as long as any precipitate was afforded. The precipitate consisting of oxalate of lime was repeatedly washed, then dried and converted into a sulphate, the weight of which, after being sufficiently heated, was 11.00=4.50 lime.

To the water freed of its lime, carbonic and sulphuric acids, and reduced by evaporation, carbonate of ammonia and phosphate of soda were added. The triple salt, after being washed and dried at a low heat, weighed 5.50, which, according to Dr. Wollaston, is equivalent to 1.12 magnesia.

Having now ascertained the weight of all the ingredients except the muriatic acid and soda, the whole of the water was evaporated to dryness. The residuum, exposed for some time to a moderate heat, was found to weigh 143., which may be set down as muriate of soda =75. soda.

To ascertain the whole quantity of muriatic acid in a given weight of brine, 100 grains somewhat reduced as before, were mixed with nitrate of silver until precipitation ceased. The chloride washed, dried and heated to a red heat, weighed 37.00, equivalent to 6.92 muriatic acid; or 69.20 in 1000 grains.

These experiments, therefore, gave me the following results, as the constituents in 1000 grains of brine, viz:

Carbonic acid - - - -	0.77
Sulphuric acid - - - -	2.46
Muriatic acid - - - -	69.20
Lime - - - - -	4.50
Magnesia - - - .	1.12
Soda - - - - -	77.00

My next object was to ascertain the manner in which these acids and bases were united together in binary compounds.

Carbonic Acid. Experiment II. satisfied me that this acid was not in combination with soda. That it was not united with magnesia, was proved by the fact that after a portion of the water had been boiled for some time, muriate of alumine gave no precipitate. It must, therefore, be combined with lime, and this was moreover proved by the following trial.

A measure of the water was boiled briskly for a few minutes. A precipitate now fell down, which being washed and dried, and afterwards submitted to the action of muriatic acid, effervesced and was partly dissolved. This was thrown into distilled water, which, after filtration, yielded a copious precipitate with oxalate of ammonia. We cannot doubt, therefore, that the carbonic acid is combined with lime, and gives 1.79 carbonate of lime.

Sulphuric Acid. Experiment *c* proved that this acid was not combined with soda, and the hydro-sulphuret of strontian satisfied me that it was not with magnesia. It must, therefore, be united with lime. But as the existence of this salt is denied by Dr. McNevin, in his analysis before quoted, and as Dr. Murray supports the opinion, that in most cases in which sulphate of lime is given as one of the constituents of mineral waters, it is formed during the analysis, I was induced to adopt another method to test the correctness of the inference which I had drawn. To a measure of the brine about half its bulk of alcohol, of the specific gravity of .825, was added. A copious precipitate was produced, which when frequently washed to free it from muriate of soda, consisted of sulphate and carbonate of lime.*

I do not conceive that the most strenuous advocate of the formula of Dr. Murray, will now object to the existence of sulphate of lime in the Salina water, particularly as it has been shown that the sulphuric acid is not combined with soda or magnesia, which, with lime, are the only bases present. Great care was taken in this part of the analysis that the concentration should not be carried so far as to render the combinations different from those which originally existed in the water. Dr. Murray himself recommends, in all analyses of mineral waters, the previous concentration of the water by evaporation. "This," says he, "renders the action of the reagents which we employ more complete and certain." Now those who have visited the salt works at Salina, Montezuma, or Syracuse, but especially the latter, must have observed that soon after the brine is exposed to the heat of the sun, there is separated a precipitate of a beautiful crystalline structure, which is insoluble in water, unless added in very large quantities. This precipitate, as will hereafter be shown, consists mainly of carbonate and sulphate of lime. A decomposition, therefore, must take place the instant that evaporation commences, or else sulphate of lime, as such, exists in the water; for it can hardly be conceived that a slight concentration of a mineral water produces no change whatever in the compounds of which it is composed, but that as soon as this is carried a little farther, the whole mass is disturbed, and by the operation of the forces of cohesion and affinity new compounds are formed. It is certainly more rational to conclude in reference to the sulphate of lime, that as it requires a large proportion of water to hold it in solution, whenever this is lessened in bulk by concentration, the salt begins to precipitate, and continues so to do until the whole is separated. The amount of sulphuric acid being 2.46, is equivalent to 4.20 sulphate of lime.

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* "Spirit of wine, which will precipitate every salt with the sulphuric acid out of the water in which it is dissolved, if sufficiently concentrated, possesses this power to a remarkable extent with sulphate of lime; for, as Kirwan observes, it will immediately precipitate one grain of this earthy salt out of 1000 grains, or about two ounces of water; and therefore this is a test of considerable delicacy." *Saunders on Mineral Waters.*

Muriatic Acid. As all the lime was not yet accounted for, it appeared probable that the remainder was combined with muriatic acid. This was also made evident by trials with alcohol, in which the muriate of lime is soluble. The amount of lime remaining is 1.76, equivalent to 3.48 muriate of lime.

By previous experiments, I had learned that the magnesia was not combined with the carbonic or sulphuric acids; it must consequently be with the muriatic. 1.12 magnesia is equivalent to 2.57 muriate of magnesia. Deducting 3.20 muriatic acid contained in the muriates of lime and magnesia from the whole amount (69.20,) leave 66.00 in combination with soda, equivalent to 143.50 muriate of soda.

The following therefore are the binary compounds in 1000 grains of the brine.

Carbonate of Lime, - - -	1.79
Sulphate of Lime, - - -	4.20
Muriate of Lime, - - - -	3.48
Muriate of Magnesia, - - -	2.57
Muriate of Soda, - - -	143.50
	155.54

The weight of the dry residuum from a like quantity of water was - - - - - - 156.00

The following are the compounds in 100 grains of the dry salt.

Carbonate of Lime, - - .	1.14
Sulphate of Lime, - - -	2.69
Muriate of Lime, - - - -	2.25
Muriate of Magnesia, - - -	1.54
Muriate of Soda, - - - -	92.38
	100.00

Methods of Manufacture.

Salt is manufactured at Salina and its vicinity in three ways. 1st, By boiling the water in kettles. 2d, By evaporation with artificial heat. 3d, By solar evaporation. I shall notice each of these methods in detail, and make such remarks as may occur upon their comparative advantages.

1st. *By boiling.* The mode pursued in the manufacture of salt by boiling is as follows. From twelve to sixteen iron kettles, such as are used in the manufacture of potashes, are arranged in two parallel rows, and firmly fixed in brick-work over a furnace, constituting what is known as a *block.* These kettles being of a capacity of about 100 gallons, are filled with brine, which is made to boil. As soon as ebullition commences, the water becomes very turbid, and the calcareous salts begin to precipitate. These are repeatedly removed by large iron ladles, which are placed for that purpose at the bottom of the kettles. and are called *bittern ladles.* A proportion, however, adheres to the bottom and sides of the kettles, and after a few days forms a solid coating, called *pan scale*. When the process is properly conducted, this is frequently removed, as its accumulation retards the boiling, and impairs the purity of the salt. Soon after this calcareous matter is deposited, crystals of salt begin to shoot out and sink to the bottom, and this continues until nearly all the water has evaporated. The salt is now removed to proper places for the purpose of draining off the brine, and suffering it to become dry. This completes the work of the manufacturer. The salt made in this way consists of fine grains, more or less hard and pure, according to the care which has been taken in conducting the process.

I should not omit to mention that the Onondago Company have erected a *block*, containing forty-two kettles and pans, with suitable vats and reservoirs; in which works the water is boiled to saturation, when it is drawn off into vats for crystallization. This possesses great advantages over the common method.

Some years since the manufacturers were in the habit of throwing lime into the brine as soon as ebullition commenced, for the purpose, as it was said, of promoting the more ready crystallization of the salt. About this time, also, great complaints were preferred against the purity of the salt; and the employment of this article was generally assigned as the cause. At present its use is probably quite limited, as it has been rendered a penal offence, by a recent act of the legislature. Still, however, it is maintained by manufacturers of great experience, that the addition of lime occasions a more speedy precipitation of the calcareous compounds contained in the water; expedites the manufacture of the salt, and does not, in the least, impair its purity.* This being a sub-sudorific, whereas two glasses drank in quick succession, and repeated as above directed, would generally act on the bowels. And when once moved by the calomel and water, may then be kept for some time in a soluble state by the water alone. We say *for some time*, for it occasionally happens, that after a certain period, the bowels become less susceptible to its influence, are partially constipated, and head-ache with most of the symptoms attendant on confined bowels, with defective secretion of bile, supervene. To remove these symptoms, we have with great benefit directed calomel or the blue pill in two, three, or four grain doses every night, or every two or three nights, according to circumstances, and the water next morning.

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* "The use of lime to produce the more ready crystallization of the salt, appears to be confined to Salina; for no notice of it is to be found in any of the histories relating to the manufacture of salt, except in a paper by M. Berthier, giving an account of the manufacture of salt, at Moutiers,

3dly. We must caution visitors against the use of the water throughout the day as common drink; for, strange to say, habit, in the use of this, as of many other disagreeable things, in a short time renders it quite palatable and agreeable. It ought not, in our opinion, to be taken oftener than twice a day. After eating an early and light supper, we have been in the habit on retiring to bed of drinking two glasses, and the next morning from four to eight at intervals, as above directed. When thus managed, we have seldom been disappointed in its effects.

4thly. It is not only important that abstemiousness be attended to by the invalid in relation to supper, but to all other meals. The frequent and free use of pastry and high-seasoned dishes, cannot be too much reprobated; against them we would caution every person labouring under chronic hepatitis, who expects, and wishes to be benefited by the use of the white sulphur water. We must also enter our solemn protest against the common and fashionable practice of mingling various discordant articles of diet in the stomach. For every invalid may, by a little attention, if his diet be simple, soon ascertain with much more precision, what will agree with him, than the prescription of the most enlightened physician can point out. Hence then the necessity of trying separately various articles of diet, by which those most digestible will be discovered. It is folly to attempt to lay down any particular regimen adapted to all chronic cases of the same kind. An article of diet easily digested by one person, may prove quite offensive to another; this frequently happens in regard to medicine, and is equally true in relation to diet.

5thly. We would recommend in addition to the use of the water, early rising and exercise on horseback or in a carriage; the former is best for persons affected with chronic hepatitis. We would also caution visitors against the common practice of sitting under the trees after the dew begins to fall,* and would recommend the necessity of fires in the mornings when the air is cool and damp.†

We regret our inability to give an account of the different substances contained in the water, it having been subjected to no correct chemical analysis; that it contains sulphur and lime in large proportions, is most evident, also sulphuretted hydrogen gas, and it is probable some magnesia. Should this paper be the means of improving the health of a single suffering human being, the author will be amply compensated for having written it.

ART. V. *Account of a Case, in which the rudiments of a Fœtus were found, on dissection, in the uterus of a Child between three and four years of age.* By Dr. ELBERT CURTIS, of Tompkins County, New-York.

ON Nov. 15th, 1825, Dr. Daniel L. Mead of Caroline, and myself, were called upon to dissect a little girl who had died on the 14th, aged three years, nine months, and ten days, by the name of Abigail Walton, in the town of Caroline, Tompkins County, New-York. We arrived at the house thirty-two hours after death: after taking off her covering, her appearances were unnatural for one of her age: a very large tumid abdomen, the mons veneris covered with a growth of hair equal to an adult, her features much enlarged, and a greater growth of hair on the head than common.

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* The dews here are exceedingly heavy.

† The mornings are generally foggy, and the air damp until some time after the sun has risen.

On opening her abdomen, we found the womb occupying the whole left side, crowding the stomach and spleen firmly against the diaphragm, and the latter considerably forced upwards against the lungs; the intestines all in the right side, the vagina attached, &c. apparently undisturbed. The whole contents of the abdomen looked natural, except the liver, which was a little indurated, and the left kidney appeared as though there had been inflammation, and was firmly attached to the womb: we took out the womb and kidney together. The kidney was distinct, and on opening it we found the inner texture much destroyed and purulent. The womb was also purulent, of a dark hue and irregular form; it was twelve inches in length, the superior part being five, and the inferior three inches in diameter. It partook somewhat of the shape of an hour glass, and weighed four pounds ten ounces.

On opening into the womb, there was a mass of congealed variegated matter, but without any very disagreeable smell: on making a deep incision, we found the vitals of a human subject, such as heart, lungs, diaphragm, brain, with its enveloping membranes; the abdomen filled with a dark mass, particularly in the right side, supposed to have been a liver. No appearance of bone in any part; but the inner surface of the sacrum appeared natural, and on passing the finger over the spinous part, it felt hard like cartilage, and much like the sample before us.

The heart about as large as half of a hen's egg, with auricles, ventricles, and foramen-ovale; the lungs in separate lobes, and the diaphragm entirely arched. The brain was enclosed by a firm membrane, and its different lobes were quite evident. No features or limbs could be discovered; but the parts above mentioned were naturally situated in relation to each other and to the whole: the head occupied the cervix of the womb, and was in a perfectly natural situation before we disturbed it, or such as is, and would be natural in an adult person; leaving not a doubt in our minds, that circulation must have gone on in the ordinary way between mother and fœtus in utero. What we could learn from the parents and connexions before her death, was this: She was born February 4th, 1822, with no other appearances, except a little enlargement of her privates, and a small growth of hair about them (to use their words). Nothing farther was noticed till the summer or fall of 1824; she was then a little unwell, complaining of her bowels, and as they thought troubled with worms, for which they gave her some medicine, without finding much relief. From that time her abdomen enlarged until her death, though not suffering much till September last; the pains would then last a few minutes at irregular periods; in the interim she would amuse herself with other children, and be quite cheerful, though very clumsy.

We each of us saw her before death, and after being made acquainted with her symptoms and appearances, concluded it an anomalous case beyond the power of medicine. Her abdomen was very large just before death, and on examining, we found a hard tumour in the left hypochondriac, also one in the hypogastric regions, though not very tender on pressure; her features and voice were like those of one that had passed the age of puberty; when standing, she had quite a majestic, or strutting appearance; when fatigued or tired of standing, she would squat down on her feet, bringing the parietes of the abdomen against the thighs—and when she lay down, would turn on her face and abdomen, always resting in one of the two positions. On the morning of the 14th November last, she cried out with pain, and expired in about five minutes after first complaining, without any previous warning of immediate dissolution.

Art. VI. *Contributions in Medical Jurisprudence and Police.* No. II. By Theodoric Romeyn Beck, M. D. Professor of the Theory and Practice of Physic, and Lecturer on Medical Jurisprudence in the University of the State of New-York.

Results taken or deduced from the Census of the State of New-York for the year 1825, *as communicated by the Secretary of State to the Legislature, Feb.*4, 1826.

POPULATION, DEATHS, BIRTHS, &c.

The population of the State of New-York, according to the United States census in 1820, was	1,372,812
The population of the State of New-York, according to the State census in 1825, was	1,616,458

Of these, 822,897 were males.
793,561 were females.

1,616,458

If we allow the increase of population from 1820 to 1825, to have been regularly progressive, we shall find the population of 1824, to have been	1,567,728

(This is probably not perfectly accurate, according to the computation usually adopted in such cases, but I have preferred it, because in its application to succeeding results, it makes against any too favourable deductions.)

Whole number of married females under 45 years in 1825,		200,481
Whole number of unmarried females between 16 and 45 in 1825,		135,391
Whole number of females under 16 in 1825,		361,624
Whole number of marriages in 1824,		11,553
Whole number of births in 1824,		
	Males 31,514	
	Females 29,869	61,383
Whole number of deaths in 1824,		
	Males 12,525	
	Females 10,019	22,544
Excess of births over deaths in 1824,		38,839

Counties.	Number of Deaf and Dumb.	Number of Idiots.	Number of Lunatics	Proportion of Deaths in 1824.	Counties	Number of Deaf and Dumb.	Number of Idiots.	Number of Lunatics.	Proportion of Deaths in 1824.
Albany	24	44	20	one in 55	Onondaga	14	29	18	one in 79
Allegany	8	22	5	do. 70	Ontario	16	36	7	do. 68
Broome	5	17	6	do. 72	Orange	17	47	32	do. 75
Cattaragus	7	4	6	do. 83	Orleans	8	8	2	do. 47
Cayuga	25	68	18	do. 83	Oswego	1	9	11	do. 69
Chatauque	8	19	2	do. 86	Otsego	26	46	24	do. 83
Chenango	5	33	10	do. 66	Putnam	2	9	4	do. 87
Clinton	12	12	6	do. 89	Queens	9	13	12	do. 68
Columbia	12	53	18	do. 88	Rensselaer	13	26	30	do. 66
Cortland	4	15	5	do. 89	Richmond		4	[illegible]	do. 63
Deleware	11	38	12	do. 77	Rockland		9		do. 81
Dutchess	8	49	22	do. 77	Saratoga	13	41	23	do. 77
Erie	9	13	9	do. 70	Schenectady	4	7	9	do. 70
Essex	4	11	1	do. 76	Schoharie	14	31	10	do. 72
Franklin	5	5	6	do. 81	Senecas	4	12	6	do. 73
Genesee	17	29	12	do. 74	St. Lawrence	10	21	12	do. 92
Greene	15	34	15	do. 95	Steuben	14	26	12	do. 67
Herkimer	12	48	15	do. 78	Suffolk	7	21	13	do. 72
Jefferson	18	31	13	do. 83	Sullivan	1	12	1	do. 84
Kings		4	[illegible]	do. 65	Tioga	2	22	6	do. 97
Lewis	5	9	6	do. 103	Tompkins	17	21	10	do. 81
Livingston	6	17	5	do. 82	Ulster	19	41	16	do. 74
Madison	12	23	15	do. 89	Warren	4	6	1	do. 72
Munroe	8	23	8	do. 64	Washington	25	48	35	do. 74
Montgomery	55	77	38	do. 68	Wayne	23	16	6	do. 55
New-York	56	46	193	do. 52	Westchester	4	40	26	do. 85
Niagara	5	13	2	do. 51	Yates	2	17		do. 76
Oneida	19	46	17	do. 83					
					Total	645	819	1421	

There are some results obtained under each of these, which deserve mention.

DEAF AND DUMB.

The act directing an enumeration to be taken, ordained that the whole number of Deaf and Dumb, Idiots and Lunatics, should be ascertained, together with their sexes, ages, and circumstances. It appears, however, that with the first of these, (the deaf and dumb) inquiry was only made concerning such as were under twenty-five years of age. All above that period of life are usually considered as beyond the power of instruction, and the census was probably limited for this reason. There is a strange discrepancy between the individual returns of the marshals and their total amounts; one can hardly look at the table for a county, without believing that there has been carelessness. Thus, for example, although a total of 645 Deaf and Dumb are returned under the age of 25 years, yet, on comparing the columns in which the ages are distinguished, we find they do not agree with the required number.

Under 10 years of age, Males 68, Females 67 135
Between 10 and 25 years, Males 221, Females 213 434
569

Of these, there are, Paupers 141
Able to support themselves, 387——528

The proportion of Deaf and Dumb to the whole population, is one in 2,506

It should be added, that there are Asylums for these unfortunate beings in the Counties of New-York and Montgomery. This will explain their disproportionate number.

IDIOTS.

The whole number of these amounts to, 1,421
Under 21 years, Males 336, Females 321—657
Above 21 years, Males 397, Females 322—719——1376
Paupers, 442
Not Paupers, 459——901

Proportion of Idiots to the whole population, is one in 1,137.

LUNATICS.

The whole number is, 819
Under 21 years, Males 33, Females 27—60
Above 21 years, Males 373, Females 356—729——789
Paupers, 184
Not paupers, 263
Confined in jails for offences or safe keeping, 24——471

Proportion of Lunatics to the whole population, is one in 1,973.

MORTALITY.

Taking the population of 1824 to be as I have stated it, 1,567,728, the proportion of deaths will be one in 69. The Secretary of State, however, in his caculations, (quoted in the above table) compared the deaths in 1824, with the population of 1825, and the result thus obtained, is one in 75½.

The county of Orleans appears to have the greatest number of deaths, the proportion being one in 47; and Lewis County the least, the proportion being one in 103. I am not aware of any local causes that can have produced the first result, but I was, I confess, astonished to find that New-York was not the unhealthiest, as it is the seat of our metropolis, and the causes which produce mortality, have been generally deemed most active in large cities like it. According to the population returns of Great Britain in 1811, the mortality in the county of Middlesex (in which London is situated) was one in 36, while the county of Cardigan was the healthiest, the proportion being one in 73. The mean of all the counties of England was 49, and that of all the counties of Wales was 60.*

Albany, April 28th, 1826.

Art. VII. *Some Observations on the Diseases of the Spanish Main, in an extract from a letter to one of the Editors.* By Jas. H. C. Miller, M.B. of the Colombian Navy.

In looking over the Medical Repository, Hexade 2d, vol. 2d, I find a communication relative to the geography and diseases of the Spanish Main. The general correctness of the writer, shows him to have been familiar with that coast; yet some of his statements seem to require explanation, and others correction. That *Chagres* and *Porto-Bello* are especially unhealthy, is strictly true,—the former perhaps is even the most unhealthy situation on the western continent,—but that it arises from the "fogs" or "stagnant water," ject of some importance, I was desirous to test the correctness of the above statements; and I had a good opportunity of doing so, by observing the effect of lime water upon a portion of the brine. I conceive its operation to be as follows: the lime unites with the carbonic acid, which escapes as soon as ebullition commences, forming a carbonate of lime, which immediately falls to the bottom. The original portion of carbonate of lime contained in the water being thus deprived of the excess of carbonic acid which held it in solution, is also precipitated, and with it, the whole, or a part, of the magnesia. We have then remaining, after these precipitations, lime in solution, (the amount depending upon that which was originally added,) and the muriatic acid which has been freed from its union with magnesia. This acid is probably saturated with lime, and the remaining portion of the latter is either converted into a carbonate and is precipitated, or else is incorporated with the salt. The addition of lime does not, I apprehend, increase the quantity of earthy muriates, and it is to these chiefly that the impurity of salt is to be ascribed.* If

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* Young's Introduction to Medical Literature, 2nd ed. Lond. p, 604.

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in France. (*Repertory of Arts, Second Series, Vol. XVII. p.* 281.) It is there mentioned that Gren, a German Chemist, recommended the addition of a cream of quicklime to the brine, under certain circumstances. But the very circumstances stated are sufficient to deter from its use."—*Dr. T. R. Beck's M. S. Report.*

*The principal objection to the salt made by boiling, is the large proportion of earthy muriates which it usually contains. This is chiefly caused by the hurried manner in which the process is conducted. The following quotation from Chaptal is in point.

"Since the suppression of salt taxes," (in France,) says he, "and that the salt trade is laid open, the proprietors of such works dispose of their salt before it has undergone a sufficient degree of purification. It appears to me to be necessary to enlighten the public mind respecting the difference between recent salt and that which has undergone depuration, and been well drained from the brine and bittern.

"Recent salt is bitter and deliquescent, whereas that which has been kept for a length of time, is of a penetrating taste, possesses solidity, and does not deliquesce on exposure to a moist atmosphere.

"Hence it appears that recent salt is not well adapted for preserving meat and similar purposes: it imparts to them not only a bad taste, and these views are correct, it follows that no great evil can result from the use of a small quantity of lime, provided the boiling be moderate, and sufficient care be taken to remove the deliquescent compounds by washing and drying the salt. But as it was generally employed by those whose only object is to obtain the largest amount of salt in a given time, without any regard to its purity, it is perhaps with propriety interdicted.

It has been observed that the earthy salts contained in this water, precipitate and form a coating to the kettles which should be frequently removed. A specimen of this pan scale of great solidity was analyzed after the manner presently to be detailed. Its composition proved to be as follows, in 1000 grains, viz. :

Muriate of Lime, - - - -	11.
Muriate of Magnesia, - - -	4.
Carbonate of Lime, - - -	60.
Sulphate of Lime, - - - -	688.
Muriate of Soda, - - - -	237.
	1000.

These proportions no doubt vary greatly in different specimens.

2d. *By evaporation with artificial heat.*—The investigations which have at different times been made into the causes of the impurity of the salt made by boiling, has had the effect of bringing into notice less objectionable methods. By these, if ordinary care is employed, salt may be manufactured of as good a quality as that of any other part of the world. The works of Mr. Byington bear a close resemblance to those of Cheshire, in England; and the salt manufactured there, which is altogether coarse, is of the best kind. The buildings

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vitiates their colour, but prevents their acquiring that firmness which is essential to their preservation. Recent salt is, moreover, subject to great waste during its conveyance to any distance, as it relents in a moist air, and runs per deliquum."—*Chaptal's Chemistry applied to the Arts. Vol IV. p.* 169.

erected for this purpose are about 130 feet in length, and 50 feet in width. In each of these buildings are three wooden vats, each connected with an iron pan, and these occupy the whole ground, except a few feet at one end. These vats are about two feet deep, and expose a surface of 10,350 square feet of water, and contain, when filled, 105,600 gallons of water, which is kept at a temperature of from 110 to 160 of Fahrenheit. The water is heated by twelve fires, which consume about 180 cords of wood per month, and will produce, in that time, about 4,000 bushels of salt. It requires three men to attend these works; and it is stated that the ashes made in the operation will pay one half the expense of this labour.*

The works of Mr. Rossiter differ somewhat from the preceding, and indeed from any other which I have hitherto seen described. They are situated on the lateral canal, and are calculated chiefly for the manufacture of coarse salt by artificial heat. The water is first introduced into a large cistern, capable of containing 57,000 gallons, where it remains until it becomes transparent. It is then drawn into a lower cistern of 40,000 gallons capacity, attached to the other, and is there rapidly evaporated to saturation. When all the impurities have subsided and the salt begins to crystalize, the pickle is drawn into a side vat or cistern of 100 feet in length, and of 75,000 gallons capacity, and then dried down by a gentle heat. The heat is applied in large iron cylinders from two to three and a half feet in diameter, which run through all the cisterns, and are entirely surrounded by the water. The two preparing cisterns are calculated to hold raw water sufficient for 2,000 bushels of salt, and the salting cistern will hold saturated water sufficient for 3,000 bushels. These works consume about four cords of wood in twenty-four hours, and produce, in summer, about 200 bushels of salt daily—and about 50,000 bushels yearly.

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* Mr. Byington's letter to the Commissioners appointed to perform certain duties relative to the Salt Springs in the county of Onondago, by the Legislature of 1825.

3d. *By solar evaporation.*—The most extensive solar evaporation works are at Syracuse, although there are some also at Montezuma. Of the former, one half is owned by the Syracuse, and the other half by the Onondago Salt Manufacturing Companies. These companies were incorporated under the act of April 3, 1821, authorizing them to expend 50,000 dollars each, in the erection of salt works, which it is believed, will complete for each company, 36,000 feet of vats of eighteen and a half feet wide, making in the whole 72,000 feet in length, capable of producing annually 150,000 bushels of coarse salt.* The vats constructed for this manufacture, are eighteen and a half feet square, and about a foot deep. Of these, there are two parallel rows which communicate with each other; the one being on a level about a foot lower than the other. The whole operation is extremely simple. The brine is conducted by wooden pipes into the upper tier of vats where it remains exposed to the sun until crystals of salt begin to shoot out on the surface. By this time nearly all the lime and other impurities have subsided, and are to be found at the bottom of the vats in beautiful crystals, which are somewhat deliquescent. The brine, thus reduced to saturation, is drawn off into the lower tier of vats, where the formation of salt goes on. It is then taken out and dried, as before, by the heat of the sun; when it consists of large crystals, hard and dry, and of a beautiful white colour. It may be remarked that the evaporation of the water depends greatly upon the state of the atmosphere, and that the process is of course retarded when there is much humidity. But to prevent the embarrassment which would ensue from the access of rains, by the dilution of the brine, covers are constructed for the vats, which run upon rollers, and may be easily moved whenever occasion requires.

The mode just described is certainly less liable to objection than any other, and if properly conducted, leaves no chance for the occurrence of an injurious proportion of foreign substances. All the impurities are allowed to subside in vats other than those in which the salt crystallizes; and as the only dependence is upon solar heat, sufficient time is granted for their complete and total separation.

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* Report of the Commissioners, &c.

The crystals found in such abundance, in the upper vats, and which have been before noticed, were submitted to analysis; and were found to consist of the following compounds, in 1000 grains.

Muriate of Lime and Magnesia, -	8.
Carbonate of Lime, - - - -	82.
Sulphate of Lime, - - - -	832.
Muriate of Soda, - - - -	78.
	1000.

Chemical examination of salt.—With a view of ascertaining the relative purity of the salt manufactured in each of the above ways, I submitted three specimens to analysis.* The first made by solar evaporation: the second by evaporation with solar heat, at Byington's works: and the last by boiling in the usual manner adopted at Salina.

Having learned by experiments upon solutions of the salt in distilled water, the nature of the compounds contained in it, I pursued the following method:

1. 1000 grains of salt well dried and pulverized, were treated with alcohol of the specific gravity of 825.:—the earthy muriates extracted and separated, according to the method adopted by Dr. Henry, in his "Analysis of British and Foreign Salts."†

2. The portion of salt which was undissolved by the alcohol, was dissolved in sixteen ounces of distilled water, and the solution filtered; in no case was there any notable portion of insoluble matter left on the filter.

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* This analysis was made at the request of the Commissioners, appointed for the before mentioned purpose by the Legislature of 1825; and the result published in their report.

† Repertory of Arts, Vol. XVII. second series.

3. To the filtered solution, carbonate of soda was added, and the liquid briskly boiled for a few minutes, and then again filtered. The carbonate of lime left on the filter, was washed and dried; its weight indicating the quantity of sulphate of lime which had been decomposed.

4. The filtered solution was neutralized by muriatic acid, and muriate of barytes was added till it ceased to yield any further precipitate. The weight of the sulphate of barytes proved that no other sulphate existed in the salt.

The salt made by solar evaporation at Syracuse contains, in 1000 grains,

Muriate of Magnesia, - - - -	2
Sulphate of Lime, - - - -	7
Muriate of Soda, - - - -	991
	1000

The salt made at Byington's works, contains, in 1000 grains,*

Muriate of Magnesia, - - -	1½
Muriate of Lime, - - - -	1
Sulphate of Lime, - - - -	9
Muriate of Soda, - - - -	988½
	1000

The salt made by boiling in kettles, contains, in 1000 grains,

Muriate of Magnesia, - - -	3
Muriate of Lime, - - - -	6
Sulphate of Lime, - - - -	11
Muriate of Soda, - - - -	980
	1000

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[*] Mr. G. Chilton of New-York, one of our most accurate chemists, analyzed a finer specimen of this salt, and found it to consist of the following compounds in 1000 grains.

Muriate of Magnesia,	½ gr.
Sulphate of Lime,	5½
Muriate of Soda,	994
	1000

It may not be improper to introduce the following table from Dr. Henry's paper above quoted; as it will exhibit the component parts of several varieties of foreign salt, and enable the reader to estimate the great purity of that at present manufactured in our own State:

1000 parts by weight consist of

KINDS OF SALT.		Insoluble matter.	Mur. of lime.	Mur. of Magn.	Sulphate of lime.	Sulphate of Magn.	Pure Mur. of Soda.
Foreign Bay Salt.	St. Ubes,	9	a trace	3	23½	4½	960
	St. Martins,	12	do.	3½	19	6	959½
	Oleron,	10	do.	2	19½	4¼	964¼
British salt from Sea-water.	Scotch (common.)	4	—	23	15	17½	935½
	Scotch (sunday.)	1	—	11½	12	4½	971
	Lymington (common.)	2	—	11	15	35	937
	Lymington (cat.)	1	—	5	1	5	988
*Cheshire Salt.**	Crushed rock,	10	$\frac{1}{16}$	$\frac{1}{16}$	6½	—	983½
	Fishery,	1	¼	¾	11¼	—	986¾
	Common,	1	¼	¾	14½	—	983½
	Stored,	1	¼	¾	15½	—	982½

Art. IV. *A description of the White Sulphur Springs of Virginia, with some observations on their medicinal properties.* By S. C. Farrar, M. D. of James Town, Virginia.

The white sulphur springs, so called from the immense deposit of white sulphureous matter, are situated in Greenbrier county, on the great western road leading from Washington city to the western and south-western states. These springs have for many years been resorted to by invalids from most of the states in the union, and the efficacy of the water in bilious and hepatic affections has long since been established by the concurrent testimony of thousands. It would be as tedious as unnecessary to detail the many remarkable cures effected by this water. Let it suffice to say, its beneficial effects have been most frequently and clearly evinced in chronic hepatitis. We shall not claim for it any power to remove hepatic affections dependent on structural disorganization; for this, when once commenced, and advanced to a certain point, is beyond the reach of all remedial agents. But we believe that in most, if not in all the cases of chronic hepatitis, of a functional character, which have not been of such duration as to have involved seriously other important organs, it acts almost as a specific. And the instances of failure we think are more attributable to the imprudence of visitors than to any other cause. To derive benefit from this water, it is essentially necessary for invalids to exercise that strict control over their propensities and appetite, which in most cases of chronic disease is rigidly enforced by practitioners of medicine, and without which the most judicious prescriptions, and the clearest and most accurate views of disease avail nothing. We will now proceed to lay down a few general rules for the government of those who may henceforth visit these springs. We will first notice its effects. It acts not only as a *cathartic*, but as a *diuretic* and *sudorific;* and hence its efficacy in some cases of tonic dropsy, and in most cutaneous diseases. But it is invariably cathartic if used at proper *times*, and in *proper quantities*, preceded by calomel.

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* Repository of Arts, vol. xvii. second series, p. 221.

1st. It frequently happens in chronic hepatitis, (especially in its early stage,) that the liver and bowels are both exceedingly torpid, and refuse to respond to ordinary doses of cathartic medicines; in such cases, we would always advise the exhibition of a mercurial dose the night preceding the use of the water. From two to six grains of calomel may be taken according to the degree of constipation, and the next morning from five to eight glasses of the water, at intervals of twenty or thirty minutes.

2dly. When the bowels are very torpid, it will always be most advisable to take two glasses in quick succession, and then wait twenty or thirty minutes, and so on until the necessary quantity has been taken. From inattention to this, we are confident the expectations of the invalid have been frequently blasted. We have often remarked, that a single glass taken in a constipated state of the bowels, would act as a diuretic or is doubtful, because, first, there is really but little stagnant water in all the region, the almost constant rains being drained off to the sea with current sufficient to prevent any passing putrefaction; and secondly, the sun, as he says, being generally obscured with the fogs, little miasma can be formed. Moisture, not constant rain, tends to the generation of malignant disorders; and the presence of the sun, for a considerable time, (which can hardly be said to be the lot of Chagres) is also, in some measure, required. No, it is rather to the internal economy of this town, and also Carthagena, Santa Martha, Panama, and Porto-Bello, that we are to look for the causes of their disorders. Chagres is the dirtiest place which can be conceived: and this character will also apply to the city of Panama. Perhaps the "fogs," *though saline*, may have some influence.

With regard to the existence of the real Leprosy on the Main,* I am quite certain he is mistaken. A disease prevails among the native inhabitants of South America, which consists of ill-conditioned ulcers ;—the Spaniards call them *llagas ;* these prevail greatly about the legs below the knees, though they occasionally exist on all parts of the body. I have seen the same tendency to ulcerations in some regions of the United States. On the Main, the seamen in the ports also have these ulcers, but in their cases they have a scorbutic origin. The hospitals have always a large proportion of patients with these *llagas.* I have seen much of it ; it is loathsome enough, but it is very far from being the true *lepra orientalis.* Mr. K——ll describes truly the tendency of the disease ; he only mistakes somewhat its real family. Among the creoles on shore, it arises from a general diseased habit of body, *not in any wise specific ;* and in these and other cases often depends on varicose veins and relaxed solids.

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*In relation to the diseases of the Spanish Main, the writer alluded to by our correspondent, makes the following statement:—Ed.

"The prevailing diseases in this country are: 1st. The leprosy, which all the inhabitants are more or less afflicted with, and strangers, soon after their arrival, are attacked by it, particularly at Porto-Bello. I imputed the cause of this loathsome disease to the water, which descends from the mountains by a natural aqueduct into the town, and from thence to the sea, and of which the inhabitants drink freely, seldom mixing with it any kind of spirits. It is extremely cool and pleasant, and of a clear bluish cast.

"Secondly. A disorder, called by the Spaniards, dolor-acostado, or pain in the side, which, when sitting on the right side, affects the liver, and when in the left, forms a hard lump, which attaches itself to the side, and generally terminates in death. This is occasioned (say the Spanish physicians) by a concentration and stagnation of the blood in the part affected. The extreme pain it gives the patient as the disorder increases, occasions a violent fever. For this complaint they give strong purgatives, bleed profusely, aud rub the part affected with warm tallow, as likewise the extremeties of the body, which produces violent perspiration—they sometimes make an incision in the side for the matter collected to discharge itself.

"Thirdly. Pulmonary complaints are frequent.

I am happy to observe some other has taken notice of a disorder as peculiar to this region. I mean in regard to what he says of the fatality of congestions when they happen in the left side, (or in other words, the spleen.) I say to observe that another confirms the existence of a disorder which I feared rested solely on my reports. The term *dolor acostado,* which he has given them, however, is what the Spaniards apply to pneumonic diseases.

I conclude *bilious fevers* to be much more severe at Chagres, than places more to windward. Indeed the yellow fever may

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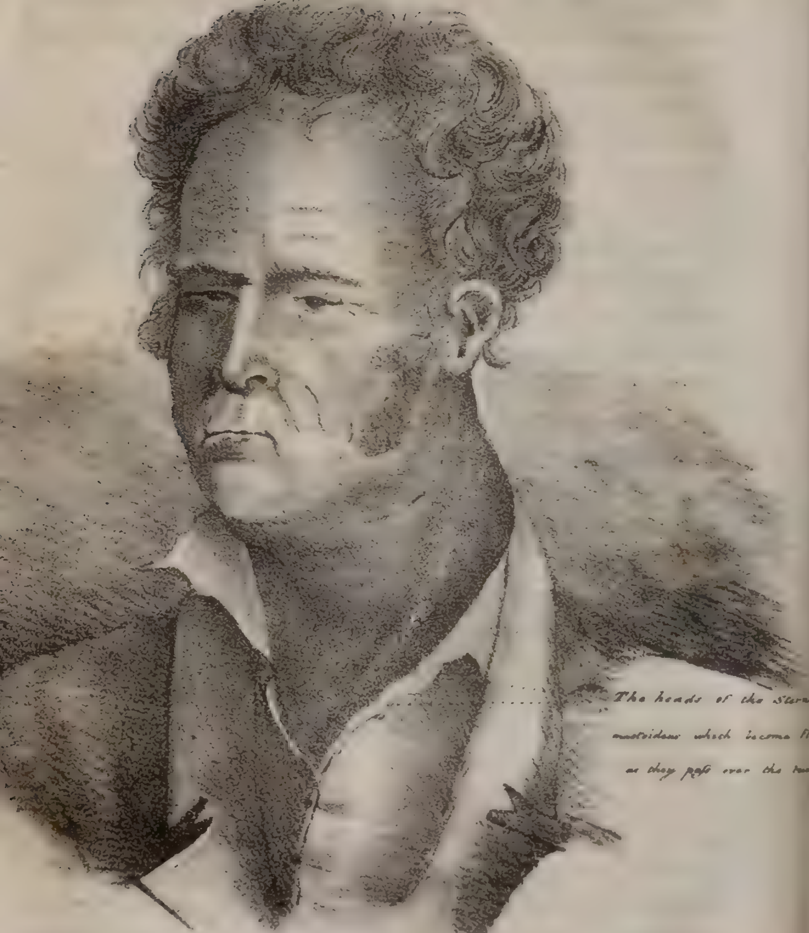
"Fourthly. Bilious fevers, which are the prevailing disease in that country, and generally come to a crisis the seventh or ninth day. If they do not terminate in death, the patient is left extremely weak and debilitated, and remains a long time in a convalescent state ; indeed, seldom recovers perfect health without change of climate. The remedies prescribed for this disorder are strong purgatives, profuse letting of blood, injections, and bark, when the fever subsides. They recommend a thin broth, made by the boiling of a fowl in water, barley-water, &c. for constant drinks ; and will not suffer the patient to eat any thing while the fever is upon him, but allow him to drink as much water as he pleases. The part most affected by this disorder is the head."—*Med. Repository,* vol. viii. p. 130.


The heads of the Sterno-cl
mastoideus which become flatte
as they paſs over the tumou

An encysted tumour on the neck of W. T.
Sketched by J. B Graves M. D. the
day before it was removed by
Dr STEVENS.

Imbert's Lithography.

almost be said to be endemic to those towns on the isthmus. It is almost always there in every season.

I have not seen many *pulmonary disorders* either there or in the other stations on the coast; yet such is the peculiar moisture of the isthmus *in particular*, I do not think their occurrence improbable.

ART. VIII. *Account of a Case of Encysted Tumour, successfully removed by an operation.* By ALEXANDER H. STEVENS, M. D. one of the Surgeons of the New-York Hospital.

[With a Plate.]

THE extirpation of encysted tumours is sometimes among the most difficult of surgical operations. A complete removal and destruction of the cyst is, I believe, necessary to a perfect cure. I saw an instance some years since of a tumour of this kind situated over the vessels on the inner side of the thigh, which, after an imperfect removal, grew again to the size of a child's head, opened, and discharged a thick viscid matter, that gradually diminished in quantity, and the tumour shrunk to the size of a nut. It then enlarged again, and went through the same changes as before, and thus for several times, each occupying six or eight months. We see a reason for this phenomenon in the structure of the inner surface of the sac. It is smooth, and polished, and not unlike a mucous membrane, and therefore not capable of adhesion. Sir Astley Cooper advises the sac in some cases to be torn out; this is a very expeditious and practicable method in many cases of small encysted tumours, especially those about the eyelids: but where they are large, that part which receives the nerves and vessels, and where alone in general the knife requires to be handled with caution, can be separated only by the knife.* Baron Boyer proposes the application of caustic substances to the surface of any portion of the sac which cannot be removed by the knife. I should hesitate to apply caustic to a part where the knife could not be used with safety; but where the patient is steady, (and in adults at least where the surgeon is composed, the patient is rarely otherwise,) I have yet to learn that any encysted tumour whatsoever, not situated in one of the great cavities, may not be completely detached without injury to any important parts with which it may be connected. Without further preface, I send you a sketch of a tumour of this kind taken by my friend John I. Graves, M. D., and an account of the operation by my pupil Mr. Samuel Boyd, jun.

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* The following paragraph, from Mr. Allan Burn's work on the Surgical Anatomy of the Neck, edited by Professor Pattison, page 115, will not, I think, be considered by practical surgeons as containing proper directions for the removal of tumours in the neck. "Let therefore no one resolve on

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the removal of any tumour from beneath the fascia at the side of the neck, till he has previously ascertained all its connexions. If these be found such as to warrant an operation, let not procrastination destroy the hope of the patient. Proceed without delay to its extirpation, place the patient in a proper position, make then an incision through the integuments, the platysma myoides and the fascia, down to the tumour, which next expose by dissecting back the parts which cover it. Now lay aside the knife, act with boldness and decision, grasp the tumour firmly with the fingers and thumb of the right hand, ascertain that the hold is secure, and instantly and steadily wrench it from its attachments behind. This if executed with proper rapidity, is not more painful than the more tedious removal with the scalpel would have been, is seldom followed by bleeding, and is infinitely less dangerous; indeed so fully convinced are the best and most expert surgeons of the truth of this, that few of them now, in extirpating tumours from the neck and axilla, employ the knife after the external incision has been made." I apprehend the forcible wrenching out of a tumour, except it be a very small one, is not so easy or so safe, or so common as is here represented. I have never seen a large tumour so removed, and have employed in order to tighten the parts by which the part of the tumour adhered, as much force as it seemed possible to employ without danger of lacerating, not the connexions of the tumour alone, but large vessels consolidated with those connexions by pressure and consequent adhesion, and which yet by a nice dissection might be safely separated from them by the knife. I have offered the case of Mr. T. as illustrative of the method that appears to me most safe for the removal of encysted tumours critically situated. In removing unencysted tumours, the edge of the knife should be directed towards the centre of the tumour itself, not towards the parts below the tumour.

Mr. T., of Hempstead, L. I., a robust man, of sixty years of age, consulted Dr. A. H. Stevens on the 2nd of June, 1826, on account of a tumour on the left side of his neck. It occupied the triangular space between the mastoid process, the symphysis of the chin, and the clavicular origin of the sterno-cleido-mastoid muscle, which passed over the centre of the tumour, and bound it down. The tumour was about four inches in diameter, and externally, except a slight flattening in the part where this muscle pressed against it, it was nearly spherical, equable, not hard, and obscurely fluctuating. Discouraged by the advice he had received for several years, from submitting to an operation, he was now resolved upon the hazard, from finding that it was increasing in size, and pressing upon the œsophagus and trachea.

He stated that he first perceived the tumour after a slight indisposition twelve years since; it was then little larger than the end of his thumb. It remained stationary four or five years, after which it was attended occasionally with darting pains, and gradually enlarged until about two years since, when its growth began to be more rapid.

Dr. Stevens performed the operation on the 3rd of June, in the following manner. The patient being seated on a chair, and resting the right side of his head on the breast of an assistant, two semi-elliptical incisions were made through the integuments, and platisma-myoides, which intersected each other at the lower point of the mastoid process, and at the bottom of the tumour. One of these incisions passed close behind the external jugular, the other skirted the front edge of the mastoid muscle. Some progress was made in the dissection, when it was found necessary to tie, and cut the external jugular, and to divide some of the fibres of the mastoid muscle. The tumour was then opened, and half a pint of thick yellow matter was discharged. The next step in the operation was to cut carefully down to the arteries, under the angle of the jaw, and place ligatures around them, before they were divided. Doctor Stevens then introduced the fore and middle finger of the left hand into the sac, and grasping it between them and his thumb, cut upon the outer side of the sac itself, his fingers enabling him to avoid cutting through it; and in this manner a careful dissection during three quarters of an hour, enabled him to remove the sac entire, and in one portion, without injury to the important parts which were so intimately connected with the tumour. When the surface of the wound was cleansed of blood, and the small arteries secured, we saw the digastric muscle and the ninth pair running below the jaw, and the descending branch of the ninth pair running over the sheath of the carotid, and the internal jugular vein covered only by its sheath. A large vein formed by the union of the lingual and pharyngeal veins had been cut into a little way above its entrance into the internal jugular, and was bleeding from each end, a ligature was applied above and below the opening, and the wound was then united with three interrupted sutures, and intermediate strips of adhesive plaster. The wound healed rapidly without any untoward occurrence, and on the fourteenth day after the operation, the ligatures had all separated, the wound was nearly closed, and Mr. T. returned to his residence on Long Island.

ART. IX. *Account of a remarkable Case of injury of the Heart, in a letter to* THEODRICK ROMEYN BECK, M. D. Professor of Medical Jurisprudence, &c. By ALEXANDER H. STEVENS, M. D.

[Communicated by T. R. Beck, M. D]

A young man in a scuffle received a punctured wound from a needle that was sticking in his jacket. The needle was one inch and a quarter in length. It entered the integuments on the left side of the chest, about two inches from the axis of the sternum, one inch above the level of the left nipple, just below the fourth rib. The needle was buried in the chest, its head going foremost. The man was separated from his antagonist, and a medical gentleman, who happened to be passing, drew the needle out. He was yet in good heart, and desirous of renewing the battle, although some minutes had elapsed since the accident, the exact time of which he was not conscious of. In about ten minutes he began to grow faint—fell, and was brought to the hospital, where I found him two hours afterwards lying insensible on his left side; pulse scarcely perceptible at the wrist, the skin cold, pale, and moist; eyelids closed, and pupils dilated. When roused, he evinced great uneasiness and oppression in the seat of the wound, unwillingness to be disturbed, and extreme anxiety when any attempt was made to turn him on his back. The external appearance of the wound was that of a defined circular ecchymosis, about one quarter of an inch in diameter. My opinion of the case was, that the internal mammary artery was wounded, and that it was pouring out blood in the anterior mediastinum, which formed a sac that pressed upon the heart and lungs. My friend Dr. Willet, the house surgeon, at my request, opened a vein in the arm; three ounces only could be drawn—no apparent effect followed this measure. After some reflection, I was making preparations to open the mediastinum, when the man died.

It was found on examination after death, that the needle had passed less than one-sixth of an inch within the internal mammary artery, between it and the edge of the sternum. The pericardium itself was enormously distended with dark-coloured blood; the outside of the pericardium had been punctured in ten or twelve places within a circle of an inch in diameter; the punctures had evidently been made by the beating of the heart against the head of the needle, and the right ventricle of the heart was lacerated on the upper and anterior surface, and presented a perforation large enough to admit an ordinary probe. The right side of the heart was empty, the left distended with blood.

The operation of trephining the sternum was performed successfully by Galen, and is very amply treated of in the elegant memoir of Monsieur de la Martiniere, in the twelfth volume of the 12mo. edition of the Memoirs of the French Academy of Surgery. La Martiniere performed the same operation, and cites several cases of its success. I have myself removed a large piece of the sternum, carious from syphilis, in the case of a distinguished military officer. There is every reason to believe that a wound of the internal mammary artery would require such an operation, and that it might be practised with success. In one of La Martiniere's operations, the internal mammary, after having been divided, did not require a ligature, but was prevented from bleeding by a dossil of lint.

The proposal to open the anterior mediastinum to evacuate blood, and to secure the internal mammary arteries has not, so far as I am aware of, hitherto been made. Were I to meet with another desperate case in which I had as strong reason to believe it wounded, as in the foregoing, I should not hesitate to do it.

I have addressed this case to you as interesting in a medico-legal point of view, as proving how suddenly death may be produced by a puncture of the chest with a scarcely perceptible external wound. In a physiological point of view, the case is also interesting, as showing the small degree of sensibility in the heart, its proximity of the heart to the parietes of the thorax, and its alternate approach and separation from them.*

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* *History of a boy whose breast-bone was cut out, and his heart exposed. From Skenkius Obs. Med. Fol.* 1609, p. 291.—Translated by Eugene Weld.

A boy, (the son of Marulus Mymographus,) receiving a blow on his breast while wrestling, was at first neglected, and afterwards entirely cured. After four months, pus appeared in the wounded part, and the physician thinking to put a stop to this, made an incision; and as he expected, the wound quickly cicatrized; afterwards inflammation appeared, and suppuration commencing, another incision was made, but no cicatrix could again be produced. Afterwards his guardian having called a consultation of physicians, (among whom I was included,) desired us to deliberate upon his case. And when mortification, or what the Greeks call sphacelus, appeared to us, to be the complaint under which he laboured, there appearing also to be a motion on the left side of the heart, no one dared to extract the diseased bone, for they thought that it necessarily involved an opening into the thorax. But I engaged that I would operate without making a perforation in the thorax, but promised nothing relative to the absolute cure, since it was uncertain whether any of those parts situated within the breast were diseased. The parts being then examined, and no farther injury appearing than at first, I more confidently undertook the operation. Although the parts to which the arteries and veins were attached appeared entirely sound on each side, when I had removed the affected bone from that part upon which the vertex of the pericardium rested, and

ART. X. *Account of a Case of Monstrosity.* By JAMES FITZPATRICK, M. D. of Lebanon, Pennsylvania.

WILLIAM LEWIS, ætat. six years, has a deficiency of the frontal bone, commencing about one inch above the superciliary ridge of the right side. Through this, which with propriety may be called a fissure, a portion of the brain protrudes, covered by the integuments, and, I apprehend, by its meninges, from the strong perceptible pulsation, and which is increased in volume upon the least exercise and slightest indisposition. The size of the tumour at birth was as large as a hickory nut, and at present is equal to that of a hen's egg, with its apex above, and its base below, measuring with a line drawn, commencing at its superior, and terminating at its inferior extremity, about two inches. It descends midway between the internal and external angular processes, measuring transversely about two inches over its surface; vision is entirely destroyed, not from the pressure of the tumour obstructing the rays of light, for the levator palpebræ muscle and its antagonist seem to act with considerable power in the elevation and depression of the eyelid; but from some disorganization in its internal structure; the cilia of the superior eye-lid is also wanting, with the exception of a small portion situated at the external canthus. The boy has enjoyed unexceptionable health since his birth; but whenever slightly indisposed, there is such a determination of blood to the head as to occasion delirium; his complexion is florid, rather of a sanguineous temperament, appetite good, and his digestive powers vigorous; he goes to school, and is remarkable for possessing strong mental faculties, surpassing those of his classmates. From the report of his mother, his entrance into

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when the heart was exposed to view, and its envelope was entirely decayed, then entertained but little hopes, nevertheless he was entirely cured in a short time, which would not have taken place, if no one had dared to have extracted the diseased bone. And no one would have operated unless previously acquainted with anatomy.

the world was tedious and difficult, although in her three former accouchments she had easy labours, and not protracted beyond six hours, but when confined with him, her pains were almost intolerable, and continued until the delivery was completed, which exceeded forty-eight hours. The cause of the difficult and lingering labour when the child was born was evidently developed; for upon examination of its head, the anterior and posterior *bregmas* were closed and perfectly ossified.

Ingenious hypothesis, combined with medical acquirements have often endeavoured to account for the causes of monstrosity; but their speculations are lavish, and their labours not rewarded with the pleasing reflection that they have arrived at any just data to ground them upon; for this subject is enveloped in obscurity, only known to him *qui videt novit et facit omnia*, and it is not in the power of man, even argus-eyed, to penetrate the causes or remove the cloud which hovers over and obscures this wonderful phenomenon. But why does this subject excite the admiration of man, whilst the natural process of conception defies the microscope of the anatomist, and paralyzes the researches of the philosopher.

The opinions advanced concerning the cause have been multiplied; to enter into a detail of them would be too prolix; perhaps the modern opinion is more plausible and satisfactory than any other, viz. that there is something primordial or aboriginal in the fœtus, or coeval with the first rudiments of the embryo. The second, although a very ancient one, has justly sunk into oblivion, and only reminds us of the credulous suppositions of former ages, which are now considered as erroneous and disproved by common observation, viz. That the imagination of the mother transferred the imperfection of some object to the fœtus of which she was then pregnant. If facts however were advanced to substantiate any one position, the latter opinion might find no small share of support, from the following history which I obtained from the child's mother, and which I shall relate, believing it not uninteresting. She stated, that when advanced in her pregnancy about *two months*, with the subject of this communication, a man named *Dochterman*, of Millerstown, in the county of Lebanon, committed murder on his own son, by striking him with an axe on the frontal bone over the superciliary ridge of the right side ; the consequence of which was a discharge of a portion of the cerebrum, and instant death. The report of this brutal act having been communicated to Mrs. Lewis by some of her neighbours, produced such an effect on her imagination as to cause immediate syncope, from which she was not aroused for some minutes. During the remaining months of her pregnancy her mind was daily impressed with the belief that something preternatural would present itself in her offspring. At birth her apprehensions were verified ; and from the recollection of the various occurrences during that time, she explicitly assigns her son's deformity to be occasioned by the inhuman act of Dochterman ; and what confirms her in the belief, and makes her more sanguine in her assertion, is, that this murderer struck his son in the mouth, and broke one of the incisor teeth, which has never appeared in her child. The subsequent day a man with a club-foot, named *Sueighart*, visited her, and appeared to have produced the same sensations, as she herself says, for the boy was born with a club-foot of the right side.

However far these facts might go to support the latter and most ancient opinion, still I think they are not reconcilable enough to the reflecting mind ; for I believe with Dr. Denman, that " such opinions were permitted to pass current in order to protect pregnant women from all hazardous and disagreeable occupations, to screen them from severe labour, and procure for them a greater share of indulgence and tenderness than could be granted to them in the common occurrences of human life."

ART. XI. *Quarterly Report of Diseases treated at the New-York City Dispensary, from the* 15*th of March to the* 15*th June*, 1826.

Asthma	2
Anasarca	4
Aphthæ	7
Amenorrhœa	29
Abscessus	6
Ascites	10
Amaurosis	4
Bronchocele	2
Bronchitis Chron.	29
Bulimia	1
Catarrhus Simplex	71
Cephalalgia	10
Cachexia Syphiloidea	1
——— Scrofulosa	1
Cephalea Nauseosa	33
Colica	4
Cataract	6
Contusio	107
Cholera	10
Cardialgia	6
Contorsio	1
Chlorosis	6
Dyspepsia	34
Delirium a Potu	18
Dentitio	9
Debilitas	20
Diarrhœa	19
Dysenteria	18
Dysuria	2
Erythema	1
Epilepsia	3
Erysipelas	15
Epistaxis	1
Febris Simplex	77
——— Remittens	38
——— Intermittens	70
——— Puerperalis	4
——— Typhus	9
Fractura	7
Fistula in Ano	2
Gastritis	2
Gastrodynia	30
Gutta Rosea	1
Gelatus	2
Hydarthrus Rheumatismus	2
Hæmoptysis	1
Hydrocephalus	4
Hepatitis Chron.	30
——— Acut.	1
Hæmorrhois	11
Herpes Circinatus	1
Hernia	1
Hydrothorax	3
Hepatirrhœa	1
Hydrops	2
Icterus	4
Impetigo	3
Iritis	12
Lumbago	14
Leucorrhœa	6
Lichen Simplex	1
——— Pilaris	2
Laryngitis	3
Marasmus	4
Menorrhagia	6
Morbus Coxarius	1
Mastitis	2
Neuralgia	2
Otitis	27
Ophthalmia Simp.	60
——— Chron.	15
——— Tarsi	21
——— Purulenta	7
Orchitis	1
Obstipatio	40
Otirrhœa Purulenta	13
Phlebitis	1
Pharyngitis	1
Pleuralgia	79
Pneumonia	66
Pleuritis	50
Pertussis	19
Parotitis	1
Phthisis Pulm.	34
Phrenitis	3
Paralysis	13
Porrigo Scutulata	4
——— Favosa	22
——— Decalvans	6
——— Lanalis	1
Plethora	53
Psoriasis	8
Phlegmon	7
Ptyriasis	3
Prurigo	2
Pemphigus	1
Paronychia	6
Rheumatismus Acut.	29
——— Chron.	53
——— Venerealis	4
Retentio Urinæ	2
Rubeola	9
Rachitis	1
Surditas	21
Syphilis	24
Scrofula	6
Splenitis	1
Stremma	19
Strictura Urethræ	2
Scabies Inveterata	2
——— Vesiculosa	42
——— Pustulæ	12
Strophulus Confertus	3
——— Intertinctus	1
Scarlatina Anginosa	10
——— Simplex.	11
Sideratio	2
Tumor	17
Tinea Ciliaris	4
Tracheitis	12
Tonsilitis	14
Ulcus Cornæ	[illegible]
——— Chron.	36
Ustio	24
Urethritis	16
Vermes	50
Vulnus	41
Varicella	5
Total	1864

The epidemic catarrh, which was subsiding at the date of our last report, had entirely ceased previous to the 1st of April. Gastric and intestinal derangements consequent upon the influenza, were extremely numerous. Arising from the same cause, were some cases of chronic bronchitis; but the most prevalent diseases were pneumonia, pleuritis, and pleuralgia. The greater number of these being of a mild character, submitted readily to emetics, active purgatives, and epispastics.

There were, however, some of a more acute form; of such, advantage was taken to make trial of the practice of administering large doses of antimony. Among the cases of this kind was a female of a full habit, aged fifteen years. Her symptoms were strongly marked as a case of pneumonia; severe pain in the left side, aggravated even by the act of speaking; respiration quick, frequent, and short; incapability of making a full inspiration; compression upon the left epigastric region increasing the pain; pulse 120, small and sharp. After full bleeding, and the administration of an active purgative, a blister was applied to the side, and she was put upon the use of the antimonial solution,

℞	Ant. Tart.	gr. iij.
	Aq. Pluv.	℥viij.

A table-spoonful was directed to be taken every hour. This produced emesis at every administration, so that her mother was induced to stop its use after the fifth dose. No alteration of her symptoms being perceived on the following day, she was again bled *ad deliquium*. The use of the antimony was continued. This was taken until she was again visited, (the following day,) without producing vomiting. There was at this time a slight amendment in her symptoms; respiration being a little more free, and attended with less pain; expectoration scanty, sputa white and tenacious, intermixed with bubbles of air; pulse 100. The proportion of antimony in the solution was increased,

℞	Ant. Tart.	gr. x.
	Aq. Pluv.	℥viij.

No amendment had taken place at the end of the three subsequent days, although the antimony had been increased within this time to *one drachm*, which quantity was taken in solution in the course of twelve hours. The epispastic had been re-applied, and the blistered surface kept continually sore. Finding, however, that the pulse of the patient became smaller, but not lessened in rapidity, that the tongue was parched, crusted, and cracked, that there was considerable restlessness, and no increase of expectoration, in fine, that she was growing worse; recourse was had to the usual practice. The treatment immediately pursued, was the administration of calomel combined with Dover's powder, purgatives, nitre, &c., from which great relief was obtained in the course of forty-eight hours. She finally recovered.

Other cases might be noticed, but it will suffice to observe that the result in no case was satisfactory, or even such as to prevent the final resort to calomel and opium.

The practice of Armstrong was more decidedly favourable in its results. It may be considered as one of the greatest improvements which have been lately introduced into the *ars medendi.* In congestive pneumonia, when the whole appearance of the patient indicates the *engorgement* of the pulmonary vessels; when the pain attendant upon this state is violent and without intermission, and the pulse sharp, incompressible, and laboured, the practice of Armstrong appears to be particularly called for. It is in this type of the disease that opium given immediately after a full bleeding is capable of restraining the *hæmorrhagic reaction.* If, however, the force of the disease be sufficiently powerful to overcome the effect of the opium, recourse to the lancet, followed by this remedy, must be had again and again, or as long as the accession of the pain renders it necessary. As soon as the *engorgement* of the vessels is relieved, and reaction prevented, the disease will give way more readily to the subsequent treatment, than if a less decided practice had been pursued in the beginning. Very frequently one decided bleeding, and the immediate administration of from 120 to 150 drops of laudanum, will at once check the progress of an acute pulmonary inflammation. This is asserted from personal experience in cases where there could be no deception.

The instances of phthisis which fall under notice at this institution are numerous. Where tubercles exist, it is needless to mention any particular treatment, for such cases are generally considered as hopeless. But there are cases strongly simulating this fatal disease, which nevertheless submit to curative means. Upon a careful examination, the disease will be found to have its seat in the air-passages. The symptoms are those common in a great degree to phthisis pulmonalis, viz. emaciation, cough, purulent expectoration, febrile exacerbations in the evening, and night sweats. But the diagnosis must be drawn from some symptoms not consistent with the presence of tubercles in the lungs. The patient finds no difficulty in lying in any particular situation ; he has not for any time previous been liable to occasional attacks of cough, dyspnœa, nor has he been peculiarly affected by atmospherical changes. There are none of these precursory symptoms so common to phthisis, but the disease is immediately consequent upon the inflammatory state existing in catarrh. The importance of distinguishing between these two diseases is great, for whilst one holds at defiance every curative means which may be employed, patients labouring under the other will have their health re-established. It is but lately that we had a case of this form of bronchitis, in which we were gratified to perceive a complete restoration to health. The means employed were the external application of antimony, both upon the chest and arms, careful attention to the digestive organs, with the occasional administration of aloes, and such cathartics as act upon the lower intestines. For the febrile exacerbations, large doses of the nitrate of potash, combined with pulverized gum arabic or tragacanth taken three or four times a day were extremely beneficial. To this the addition of minute portions of antimony was found useful. The diet was light and nutrient. Flax-seed tea, or an infusion of the bark of the slippery elm acidulated with lemon-juice, afforded a pleasant and excellent drink. After the cough and fever had ceased, nitric acid completed the cure.

The greatest relief was to be attributed to the pustular eruption produced by the antimony. Its application appears more decidedly beneficial than the use of blisters. The ointment is to be depended upon with less confidence than an adhesive plaster sprinkled with from a scruple to a drachm of the powder. The eruption is sooner produced, and in a greater degree than when the *pommade* is used.

Among the cases of pertussis, a few were of an extremely inflammatory character, showing strong symptoms of pneumonia. These were treated by antiphlogistics, and recovered. In the milder cases, after a slight emetic and cathartic in the first instance, the only remedy used was a solution of the subcarbonate of potash, with the tincture of assafœtida.*

The cases of neuralgia were strongly marked. Thomas Todd, aged forty years, of a full plethoric habit, and a stonecutter by trade; for some time previous to his being attacked, he had been troubled with head-ache and vertigo. Whilst walking in the street in September last, he suddenly felt a dizziness, and reeled against a house as if he had been intoxicated; upon recovering himself after a few minutes, his left cheek he discovered was deprived of motion. He immediately had himself bled, and took some cathartic medicine. In December he applied to the dispensary. At this time the left side of the face was much distorted by a paralysis of the muscles of that side; sensation however was as acute as on the opposite side, with a general contraction of the facial muscles towards the neck; he was also unable to close the eye, the conjunctiva of which was much inflamed. Connected with this, the patient was suffering from the most excruciating pains, shooting from beneath the left mastoid process through the cheek; following thus the course of the *portio dura* and its facial branches. This pain was peculiarly acute, and at intervals was similar to what he thought he should experience if heated wires were drawn through his flesh; it was also intermittent; the evening exacerbations being more constant and violent. His tongue was pale and slimy; pulse full but compressible. Skin rather dry; appetite good; but the bowels irregular, generally costive. He was bled and directed to be cupped upon each temple. An emetic and purgative were ordered, and a blister was also directed to be applied to the back of the neck. For the space of a week an infusion of senna was taken every morning, and for the evening exacerbation, which entirely deprived him of rest, opium at first was given, but as it afforded no alleviation of pain, its use was suspended. Trial was then made of quinine, but this was as useless. Two weeks after his entrance, as no substantial relief had been obtained, a more particular inquiry in respect to his former habits was instituted. From his family it was ascertained that, (although he had stoutly denied it himself,) he had been accustomed to drink large quantities of spirituous liquors, which very seldom however produced absolute drunkenness. He had had also, a year previous, an attack of intermittent fever, since which time he had been troubled with costiveness.

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* ℞ Potass. Sub Carb. ʒij.
Tr. Assafœt. ʒij.
Ol. Menth. Pip. gttiij.
Aq. Pluv. ℥viij. M.

These facts led to a more certain knowledge of the causes of the disease, attention being particularly directed to the digestive organs, especially the hepatic system. With the intention of exciting a more healthy action in the chylopoietic viscera, an emetic was directed to be taken every afternoon as near as possible to the time of the regular exacerbation, and a blue pill with a full dose of Dover's powders at bed-time, with an infusion of senna in the morning. He also took a decoction of sarsaparilla frequently through the day, and was confined to light diet. From this treatment at the end of another week he was decidedly better; during part of the night he slept well, of which enjoyment he had been so long deprived. He was capable of exercising more power over the paralyzed muscles, and could nearly close the tarsi. The head-ache occasionally troubled him, and the neuralgic affection still tormented him, but in no degree as severe as formally. The daily use of the emetic was suspended, but he was directed to take one whenever the pain should threaten to return with its former intensity. He also took a blue pill twice or three times a week, by which his bowels were kept in a soluble state. At the end of two weeks from this time he was discharged, having a slight deformity from the paralysis, and an occasional uneasiness of the stomach; he was able to close his eye, and chew equally well with either side of the mouth. He was however directed to continue the use of the sarsaparilla, to which were added colombo and gentian.

The second case was a married female, aged about thirty years. She was not affected with paralysis, neither had she as much pain as Todd. It was acute, but the paroxysms were not as frequent; there was also a considerable exacerbation every evening; her tongue was extremely foul and slimy; pulse irregular, and bowels habitually costive. The stomach and liver were greatly deranged. She had gastrodynia, and an enlarged state of the liver. The indications being plain. she was put upon the plan of treatment pursued in the former case, with a slight difference which circumstances seemed to require. An emetic was taken twice or thrice a week, and small doses of calomel, followed every other day by a cathartic. She became salivated on the eighth day. This, though unintentional, was not attended by an aggravation of her symptoms.* In fact she began to recover rapidly after this, and in three weeks from the time of her application she was discharged. The pains had entirely ceased, and she only complained of a disagreeable sensation of the stomach, and occasional vertigo. She was directed to take quinine and tincture of cinchona, and also an emetic if the pain should in any degree return.

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* The saturnine solution is by far the most effective gargle that we have employed in cases of salivation; the only disadvantage attending its use being the blackening of the teeth. The bowels should be well attended to during its use.

A month after this time she was accidentally seen. She had had no return of the disease, and her general health was better than it had been for several years.

Perhaps it may not be unimportant to mention, that previous to coming to the city for advice, she had been prescribed for by a physician in the country, who had in the course of a long attendance never directed a single emetic, but had kept her upon the use of bitter tonics, and the occasional use of a cathartic. From the woman's description of some powders which had been given her, we are inclined to the belief that she had taken no small quantity of the carbonate of iron.

In the history of these cases, the strong sympathy existing between the stomach and sensorium is very forcibly shown. In the treatment of this disease, it is a little singular that more attention should not have been shown to the general derangement of the digestive organs. In Great Britain the carbonate of iron is the fashionable remedy at present, but it is difficult to reason oneself into a belief that in similar cases to those here related, this medicine would at all have afforded relief. We cannot believe that if these patients had been dieted upon *iron rust* their cure would have ever been affected. The high applauses which have been given to the carbonate of iron. seem to savor a little of a disposition to ascribe to it a specific action in neuralgia. It is prescribing for a *name*, and overlooking the causes of the disease. The principles of medicine it would seem were likely to be lost sight of, and a book on nosology, and a dispensatory, all the works which were to constitute a physician's library. There are no doubt cases which have been benefited by iron; but we believe a majority may be treated more successfully by attention to that great seat of disease, *the digestive organs.*

Neuralgia, we conceive, arises from some peculiar morbid action of the brain. This state may be induced by a continued functional disorder, excited by a long series of gastric derangement. That such causes produce great cerebral congestion, is witnessed daily, and that from a continuance of such a state of the vessels, the nervous system becomes peculiarly affected, is also frequently noticed. Is it at all improbable that a diseased action thus produced, may give rise to a compression upon the origin of any particular nerve? or that this compression may excite an inflammatory action in its neurilema? We think not. In the case of Todd, there can be no doubt that the paralysis was produced by an engorgement of the cerebral vessels causing compression, and a loss of motion.* The same cause we apprehend gave rise to the attendant neuralgia. From the whole course of the disease, we are more firmly convinced of the correctness of this opinion. Coeval with the alleviation of the pain, the motary influence of the facial nerves was increased. The remedies were followed by two important effects; an increase of the diminished motary power, and a diminution of the excited sensibility. From this we infer that either of these diseases may be produced, according to the degree in which the exciting causes may be present, or to the greater tendency to excitability, which may exist at the time in the nerves of motion, or in those of sensation. As these causes act, or as the two systems of nerves may be predisposed to be acted on, so there will be produced either an increased sensibility in one, or a paralysis of the other.

Finally, that neuralgia does in almost every instance arise from a disorder of the digestive organs, is inferred from the history of cases recorded, and from the few which have personally fallen under our notice. In these the patients exhibited both by their tongue, irregular appetite, and state of the bowels—a general derangement of the digestive functions. This disordered condition was of long standing, generally a number of years, and may have been produced by various causes. The patient had also in most instances suffered from chronic hepatic affection, with all its attendant miseries; gastrodynia, constipation, vertigo, languor, and a continual state of *ennui*. After the long continuance of these, either in a more severe or milder form, attendant upon great nervous irritability; he has had occasionally sharp pains of a momentary duration, shooting suddenly along the course of the nerve, when, unexpectedly he is attacked by neuralgia, with all its accompanying tortures.

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* We are aware that from Mr. Charles Bell's experiments, it is generally believed that the muscles may be paralyzed independently of any affection of the brain; but the whole history of Todd's case will not permit us to doubt that cerebral compression was productive of both the paralysis and the neuralgia.

In the treatment, the object of the frequent administration of emetics was not only to rid the stomach of its morbid secretions, and excite in it a more healthy action, but particularly to destroy as much as possible the habit of the regular paroxysms, which in both cases were most violent in the afternoon. With this intention they were taken as soon as any increase began to be felt. After the action of vomiting, the consequent nausea lengthened materially the time of the renewed accession. The remedy to be particularly relied on, however, we think is calomel, or the blue pill, given in alterative doses, and followed frequently by drastic cathartics. In connexion with these, there are other remedies which will be found necessary. From the long continuance of the functional disorder of the stomach, *tonics* will be required; *sarsaparilla* with *colombo*, in the form of decoction, serve every purpose extremely well. Strict attention to diet will be found highly necessary. After the patient is relieved of the pain, and needs no longer the attendance of a physician, a very good preparation for him to take occasionally, is one, the combination of which we found in Johnson's Review.*

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* ℞	Magnes. Calcin.	ʒij.
	Aq. Ammon.	ʒj.
	Ol. Cinnam.	guv.
	Aq. Pluvialis	℥viij. M.

REVIEW.

Art. I. *Observations on the autumnal Fevers of Savannah.* By W. C. Daniell, M. D. Savannah and New-York, 1826. 8vo. pp. 152.

We can well conceive the solicitude and embarrassment which an author must unavoidably experience, when he presents himself before the public as the champion of an unpopular cause, or the defender of principles against which the highest authorities have long entered their solemn and decided protest. Innovations of all kinds are regarded with jealousy, and he who would gain favour and support in a contest against established maxims and precepts sanctioned by time, must come armed with weapons of no ordinary power, and employ arguments sustained by the clearest lights of truth, before he can hope to effect his purpose. In medicine, more especially, a science so unbounded, and involving the dearest interests of humanity, the most unequivocal evidence of experience and competency will be required in him who attempts an overthrow of received doctrines, and accumulated observation. We are not displeased, therefore, with the acknowledgment of anxiety by the author now before us, when he attempts, with no small share of boldness, to revive the long-exploded doctrines of debility and stimulation in bilious and yellow fevers. Aware of the hazardous attempt, he prefaces his remarks with an account of his experience, his success, and the success of those who have entered into his views. Unfortunately for him, however, there is a document in existence which goes far, in our opinion, to set aside his views and conclusions concerning the diseases of Savannah. In an account of an epidemic prevailing near and at Savannah, written by Dr. William R. Waring of that place, and published in the North American Medical and Surgical Journal, we find that fever in Savannah observes the same laws as it does every where else—assuming different forms according to variations in the causes predisposing and exciting, and in the constitution of the individual attacked, and that the treatment was varied according to the form.* Of debility Dr. Waring speaks thus: "Muscular debility, tranquil or diminished action of the heart, moderate temperature of the skin, are the common result of cephalic irritation of intestinal and gastric irritation, and even of pneumonic irritation. Accordingly it has been found, that blood-letting, moderate evacuations from the bowels, &c. have proved the most successful remedies." This is language very different from that which we shall presently see used by Dr. Daniell, who not only denounces bleeding and mercury, but even purgatives, diaphoretics, and, in short, all evacuant remedies.

Having made these preliminary remarks by way of a caveat to the reader, we now propose to furnish him with a condensed view of the author's views and facts, that he may judge for himself of the pertinency of our general exceptions against the inculcated doctrines.

The first part of the volume contains some observations on the topography of Savannah, from which we learn, that this city stands upon a plain, on the south side of the river of the same name, about twelve miles distant from the ocean; that this plain is elevated about forty feet above low-water mark, and is composed of sand mixed with clay. Iron also enters into the composition of the soil. Opposite to the city lies Hutchinson's Island, formed of alluvial soil, and subject to inundations by ordinary spring tides. On the east and west, the city is bounded by lands similarly formed and situated as Hutchinson's Island, all of which are, therefore, well adapted to the cultivation of rice. The city of Savannah is open and spacious; the streets are numerous and wide, intersecting each other at right angles, and having large squares at regular distances. Dr. D. infers it as obvious, from this statement, that there is not in the character of the soil, nor in the situation of the city, any thing to preclude it from the enjoyment of health, and that whatever causes of disease exist are under control. In evidence of this position, a history of the dry culture system is given with some detail, for which we have not room. It appears satisfactorily, that while the low lands remained in a state of nature, they did not occasion disease; and that the dry culture system has again redeemed them from the obnoxious charge of being fomenters of disease, to which they were subjected while under wet culture. The following remarks on the etiology of yellow fever, we give in the author's own words:

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* See the number for January 1826.

> "It has been already stated, that the great mortality from the yellow fever of 1820, aided in bringing the dry culture system into disrepute. The production of this epidemic having been attributed to various causes, it may not be amiss to point out its real sources. In the first place, it will be proper to remark, that during a few years previous to 1820, a very great number of labouring foreigners, and especially Irish, came to the United States. The large cities to the north were soon thronged with them. The commercial embarrassments which occurred soon after, diverted many to the south; and a large number located themselves in this city.
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> "White porters and draymen were unknown in Savannah previously to the winter of 1818-19. Very many arrived in August and September of the latter year, almost all of whom speedily became victims to the climate. In the winter of 1819-20, our city was literally thronged with them. Every tenantable house was crowded. The great fire of January, 1820, dispossessed very many of them of their frail homes. These were necessarily driven in upon their countrymen; and frequently two and three families were found in small houses of one story, with but two small rooms ten or twelve feet square; in one of which the occupants cooked, washed, and ate; and slept in the other. I have, elsewhere, adverted to the inattention of the police to cleanliness. The filth was greatly increased by these crowded families. It was in the eastern and western extremities, where these people mostly lived, that the fever made its appearance. In the central southern part of the city, which had been recently built up, and where there was none of this crowded population, no case of fever appeared during the whole season.

"There is no doubt, but that the decayed condition in which many of the small buildings were, also contributed, though very subordinately, to the causes of disease. My own observation of the extreme filthiness of these over-peopled portions of the city, is fully confirmed by the report of a committee of the Georgia Medical Society, who examined them. Three of the four physicians who composed that committee, died in the course of the season. The other, (the respected president of that society,) from domestic afflictions, left the city. The ruins, occasioned by the fire of that year, have been by many considered as causing the disease. These were in the northern central portion; in the neighbourhood of which, the cases of fever were by no means comparatively so numerous, as in the eastern and western sections. In the absence of our new population of foreigners, the causes of disease as they existed, would no doubt have produced great mortality; but it is certainly true, that that population afforded near three-fourths of the whole number of deaths.

While many adduced the fact of the mortality of this season, to prove the inefficiency of the dry culture system, a faint effort was made to induce a belief that it was the cause of the disease. Either opinion is, however, equally erroneous, as has been since proved by ample experience." pp. 22, —24.

Autumnal Fevers. Under this term our author embraces the intermittent, remittent, continued, and yellow fevers; considering them all as arising from similar causes or modifications of the same cause, subjected to the same rules of treatment, and therefore as being essentially the same disease. We need not inform our readers, that this view is directly contrary to that we have promulgated in this journal, and of which we gave a pretty ample exposé in our fifteenth number. Dr. Daniell thinks it *probable,* that all autumnal fevers are modifications of the simple tertian. Quartans rarely occur in Savannah; simple and double tertians are the prevailing forms. Continued fevers are not common, and becoming more and more rare.

Dr. Daniell here commences his attack in form upon the depleting and mercurial plans of treatment in bilious fevers, by imputing to their agency a change in the form of the fever from the intermittent to the remittent and continued type. Thus, he tells us that previously to the introduction of these modes of treatment, the fevers of Savannah were decidedly intermittent, but after their adoption, these assumed a remittent, or continued type. In confirmation of this view of the subject, which will appear singular to many of our readers, Dr. D. adduces the fact, that the poor who reside in the most unhealthy locations, suffer chiefly from intermittent fevers. These, it is contended, receive *little* medical attention, unless when sought out by charitable persons; hence "the intermittent type of their fevers is attributable to their being left to the resources of nature." So much for his facts: upon which we shall only observe, that the author has lost sight, although he asserts the contrary, of the influence which the dry culture system has exercised over the character of the diseases in question, and also of the important consideration, that the east and west portions of the city in which the poor reside are in the immediate neighbourhood of low marshy ground, the true locale of intermittents.*

Now for his theory:

> "There are but few matters of opinion upon which my convictions are more clear, than that the intermittent and remittent type of our fevers, may be influenced by active and drastic purgings. Such means increase very much the tendency of blood to the internal parts, counteract the efforts of the internal capillaries to relieve themselves, by throwing off the excess of blood cast upon them, and by overpowering, impair their vigour. I well know, that this is a point upon which physicians may fairly differ, as it cannot be subjected to absolute proof; for, upon the supervention of a fever, no one can say, with certainty, what will be its type." p. 44.

With the opinion advanced in the first sentence just quoted, we perfectly agree. Purging not only *may*, but *does* influence, and that to a great degree, the character and duration of periodical and all other fevers. And what is the influence they exert? They remove fœcal accumulations, which, by remaining in the intestines would prove active and dangerous irritants to the system. By the removal of these extraneous matters from the intestines, the descending bloodvessels are freed from oppression, and the blood is diverted from the head and larger viscera where it is too apt to be detained, and to form serious congestions. Nor does the agency of purgatives rest here. By increasing the secretion of the bowels, they directly diminish the quantity of fluid stagnating in the abdominal circulation, and indirectly excite the secretions of the liver and its adjacent glands, by which a powerful support to the morbid associations incident to fever is effectually withdrawn. Not so, says Dr. Daniell. "Such means increase very much the tendency of blood to the internal parts, and counteract the efforts of the capillaries to relieve themselves!"—and he adds, "by overpowering, impair their vigour." It were superfluous to expose in detail the fallacy contained in this sentence. Dr. D.'s views of pathology and of the operations of medicine, are assuredly *singular*.

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* See page 18.

We are next presented with reflections on the manner in which the causes of fevers are introduced into the system; and the opinion of our author appears to be, that they act through the medium of the atmosphere on the external capillaries. These being impaired in their function, the internal capillaries receive an undue portion of blood, and are stimulated to reaction. Sometimes the effect is so complete and sudden, that the system is capable of no reaction. Hence patients die in the cold stage, or the disease is throughout of the congestive kind. Here our author insists upon it, that the only chance of success consists in producing a reaction; and no one will dispute the correctness of his rule. Why does he not go one step further, and admitting that reaction does take place, modify his views of treatment according to the degree and violence of this reaction, and the vitality or sensibility of the organ upon which, from previous predisposition, this reaction is almost certain of expending itself?

We have not time to follow the author in his speculations, which are common-place enough, upon the functions of the capillaries—the bloodvessels—the liver and spleen. At page 57, however, we find the following sentence. "In the former, (the liver) as well as the latter, (the spleen) I am disposed to claim the existence of an erectile tissue." This idea, Dr. D. says, has been suggested to him by their tendency to enlargement. Would not any one gather from this language, that the author claimed this view as originally his own? And if he does so, then how will he answer it to himself or to the profession in the South, for whose literary reputation he appears to be exceedingly anxious, that in an investigation concerning the physiology of the skin and internal organs, he has omitted to consult the work of Bichat and Beclard, where this same idea of an erectile tissue was years ago advanced, and whence it has since been copied into the elementary treatises?

In his unsparing crusade against mercury and drastic purgatives, Dr. D. next discovers, that impaired digestive powers of the stomach, unhealthy appearance of the skin, and decayed teeth, are all chargeable to these deplorable foes to health, appetite, and beauty. Nay, he goes so far as to tell us, that he has met with but few persons with decayed teeth, who, upon inquiry, have not admitted their *habitual* use of calomel. How many females and exquisites will not rise up in arms against Abernethy and Armstrong, and all our medical brethren in this country, not excepting Dr. D.'s kind preceptor, and demand at their hands their racy and keen powers of digestion, their once rosy and fair complexions, and above all, their once vigorous and pearl-white masticators! But enough.

It is pleasing to us to exchange dogmatism and paradox for acknowledged truth, however familiar. We quote therefore at large the following paragraph on contagion:

"One reason alleged, especially in Europe, for a belief in the contagion of yellow fever is, the reputed fact, that the same person cannot take the disease a second time. Although the unfrequency of a second attack from the causes alleged above, gives some plausibility to the assertion, it is certainly erroneous. It is a very common impression among our inhabitants, that a person who has experienced a severe fever should seek the following season a northern climate for the perfect restoration of his health. Such as adopt this means, destroy the future protection derived from the attack of fever; and render themselves upon another summer's residence among us, almost as obnoxious to the cause of the disease, as upon the first exposure. Near three hundred negroes were brought into this place early in 1820, who had been captured on our coast, by government vessels. They were recently from Africa. These persons remained in Savannah during the prevalence of yellow fever, and not one suffered from the disease. Their exemption is attributable to their habitual exposure in their native country to the causes of yellow fever; equally concentrated with those, which prevailed here; at that time, producing among us a mortality, perhaps unexampled in this country. Africans, however, like other people, are subject to the influence of climate, custom and habits; and the exemption from yellow fever, which they acquire by their habitual exposure at home, is gradually impaired by their translation to more healthy climates. Dr. Rush, supported by some West India physicians, then in Philadelphia, declared the negroes not liable to yellow fever. Observation, however, soon satisfied him of his error, which was readily acknowledged. The opinion of the West India physicians, confined to the field of their observations at home, was no doubt correct. It was the change of climate, with the subsequent change of habit, that subjected the negroes of Philadelphia to yellow fever. Negroes habituated to the atmosphere of rice plantations, are in a very great degree exempt from severe autumnal diseases; and the native African, more so than his offspring; and they are more liable to the diseases of winter. House servants are more liable to the former, and less so to the latter. This difference of predisposition, among members of the same family, is mainly attributable to the influence of their habits and customs. Many of our domestics became victims to the yellow fever of 1820. The rice field negro is less removed in his atmosphere, habits and customs, from those of his native country, than the house servant. The first delights in the heat of our hottest days, if we may judge from the manner in which he voluntarily exposes himself, both awake and asleep, to the direct influence of the sun; whilst the latter studiously avoids it. In the proportion that an individual acquires an exemption from yellow fever, his liability to winter disease increases. Nature has most happily endowed our systems with a capacity to adapt themselves to new situations. That state of the system which is best qualified to shield us from yellow fever, is least calculated to protect us from winter disease; and *vice versa*. The skin of the African defending him from disease, in the midst of his exposures at home, upon a translation to a cold region, renders him highly obnoxious to winter disease. The vigorous health of the New-Englandman, that sustains him in his hardy exposure at home, qualifies him for severe disease, when translated to the West-Indies. Each may in time, if he survives the first shock, become habituated to the evils of his new situation; but can never enjoy the impunity of the native." pp. 63 ; 66.

Some desultory remarks follow on the symptoms of autumnal fevers, from which we are left to the inference, that Dr. D. has been peculiarly fortunate in never meeting with a case in which reaction was so fully developed as to thwart his favourite plans of stimulation. This, it is well known, has often been the favoured lot of theorists and specific healers, and we are content that our author should enjoy all its advantages.

Is autumnal fever inflammatory?

In combating the affirmative of this question, our author seems to take it for granted, that all practitioners who do not confine themselves exclusively to the tonic plan, identify fever with inflammation. Now such perversion implies in the writer either wilful blindness, or the most unpardonable ignorance. All that we, in common with a large majority of the physicians of the present day, contend for is, that local inflammation often accompanies fever as a consequence, not an essential link in the chain. We do contend, that in the greatest number of febrile cases, there is at the commencement, and immediately after the first or forming stage, action in excess: and that this action requires reduction. Dr. D. is correct, therefore, when he says, "It has been urged that all fevers are at first inflammatory, but that they soon run to a state of debility, and that bleeding is to be limited to the first stage.*" How correct he is in what follows, will be evident at the first glance: "It need only be replied to this paradox, that *as the stage of debility is the only one attended with danger*, *(!)* it cannot be judicious to precipitate that condition by reducing the system," &c. Is it possible that any physician, in this enlightened age, can be so ignorant of the principles of pathology, as not to be aware that the danger in fevers, after the first invasion has been withstood, arises chiefly from the excess of action overpowering vitality in one or more of the most important viscera, and displaying itself in the form of inflammation or congestion? Have these prinples not taught him too, that subsequent debility is almost invariably proportionate to the previous excitement, and that the reduction of the latter is the only safeguard in our hands against a dangerous supervention of the former? Not contending then for the exclusive and essential inflammatory character of fever, we do not think it necessary to go through the arguments of our author tending to prove that many cases of fever are not accompanied with local inflammation.

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* Page 79.

Upon *salivation* we are presented with a few remarks, all going to show the inutility of this process, and in fact of administering mercury at all in fever.

Method of treatment. Notwithstanding all we had read in the former part of this work, when we reached this chapter, such was the force of invincible habit, that a lancet, a dose of calomel and jalap, an emetic, or at least a spoonful of castor oil, was immediately present to our anticipations. But how mistaken we found ourselves—enveloped still in the midst of prejudice and old-fashioned rules!

1st. *Sinapisms.* We are startled at the two first sentences which occur. "These have heretofore been used for their rubefacient virtue. *I* have resorted to them, to inflame the skin." We would humbly ask the author, wherein the difference in indication lies between those who have excited redness, and with it heat, and tension, and pain, in a part, and *him* who *inflames* the skin? We wait for an answer.

By sinapisms extensively applied, the circulation is, according to our author, diffused equally throughout the system, and local congestions are removed. "*These* (sinapisms) *are directed without regard to the temperature of the surface, or condition of the patient, provided fever be present.* The author avers that they induce evacuations by the bowels, which, if produced by a moderate purge, would be injurious.

2. *Cayenne pepper.* This is given in the form of tea, in as large doses as the stomach can bear.

3d. *Serpentaria Virginiana.* We are surprised that the author does not apprehend debility from the diaphoretic effects of this medicine: he is somewhat fearful of its producing excitement in the brain, or delirium. The Cayenne pepper, we suppose, will counteract this tendency.

4th. *Bark.*

5th. *The Arsenical Solution.*

We now commit Dr. Daniell to his professional brethren. If our criticism has been other than impartial and just, their suffrages will assuredly acquit him, and secure him a far more grateful reward for his labours than our praise could have ever bestowed.

Art. II. *The Institutes and Practice of Surgery: being the Outlines of a Course of Lectures.* By William Gibson, M. D. Professor of Surgery in the University of Pennsylvania, &c. In two volumes. Philadelphia, 1825.

We resume the analytical notice of this work, which we commenced in our last number, and which we shall now bring to a close.

Chapter VI. In this chapter our author takes up the consideration of *Specific Diseases*, as Scrofula, Cancer, as affecting various parts of the body, Fungus Hæmatodes, Gonorrhœa, and Syphilis.

Scrofula. On this subject we do not find that any thing new is offered. With regard to the cause of the disease, Dr. Gibson is inclined to adopt the opinion of Carmichael and Lloyd, who refer it to a deranged condition of the digestive organs.

In the *treatment* of this disease, the occasional use of mild purgatives is recommended, such as magnesia, rhubarb, castor oil, and the blue pill. The diet of the patient is the principal thing, however, to be attended to. This should be light and nourishing, consisting chiefly of plain animal food, and such other articles as the stomach can easily digest. Along with this are advised bark, either alone or combined with iron, a change of climate, or removal from a cold and damp to a dry and warm situation, flannel worn next to the skin, keeping the body and extremities warmly clothed, together with moderate exercise. We are surprised to find, among the list of remedies, no mention made of *Swaim's Panacea*, a celebrated nostrum, to which Professor Gibson, and some other of his colleagues in the University of Pennsylvania, have seen fit to lend the support of their names. We certainly expected to have seen a detailed account of the extraordinary virtues ascribed to this wonderful medicine. Dr. Gibson probably supposed that, as his recommendation of it was regularly published in most of the newspapers of our country, it was unnecessary to say any thing further on the subject.

Cancer. Under this head are considered the various forms of this disease, as affecting the eye, lip, tongue, breast, uterus, rectum, penis, and testicle; but we find little that is not familiarly known.

The following statement, in relation to extirpation of the womb in cases of cancer of that organ, is interesting, as it shows the safety with which this formidable operation may be performed.

> "Professor Osiander of Gottingen, was the first to conceive and execute so bold a project; and his example has been followed by Dupuytren and other European surgeons. The first operation of the kind was performed by Osiander in 1801, on a widow, whose vagina was filled by a very vascular, fetid fungus from the orifice of the womb, as large as a child's head. By means of Smellie's forceps, the fungus was brought down low in the vagina, but being accidentally broken off, a tremendous hemorrhage ensued. Undismayed, however, by this event, the operator determined to proceed, and immediately pushed a number of crooked needles, armed with strong ligatures, through the bottom of the vagina and body of the uterus, until they emerged at the inner orifice. These ligatures served to draw down the uterus, and retain it in the vagina near the external orifice. The surgeon then introduced a strong bistoury above the scirrhous portion, and divided the womb completely in a horizontal direction. The hemorrhage for an instant was violent, but speedily suppressed by a sponge saturated with styptics, and the patient recovered in three or four weeks. Osiander afterwards performed eight similar operations upon different patients, all of whom recovered without the slightest difficulty. Dupuytren also has performed the operation eight times; but instead of employing the ligatures and bistoury recommended by Osiander, he drew down the uterus with forceps, and divided it above the scirrhous part by curved knives and scissors. One of the patients, upon whom Dupuytren operated, had a return of the disease, and submitted to a second operation with no better success, until Recamier, a surgeon of the Hotel Dieu, contrived a speculum through which caustic was repeatedly introduced, and by it a complete cure was at last effected." p. 288–290.

The *cancer scroti*, or chimney-sweeper's cancer, has never, according to our author, been known in America. He is disposed to attribute this to the general use of wood instead of coal, or to the circumstance of negroes alone being employed in the sweeping of chimnies.

Fungus Hæmatodes. Of this very terrible disorder, we are presented with the following condensed and satisfactory account:

> "This disease may occur in almost any part of the body; but the extremities are particularly liable to it. Though not very common in America, it occurs often enough to deserve the attention of the surgeon. When it occupies any of the external parts, it is characterized by the following appearances:—In the incipient stage a small tumour is perceived, almost devoid of sensation, smooth on the surface, moveable under the integuments and elastic to the touch. This may remain stationary for years, without giving the patient the slightest uneasiness, until a blow or strain, or some accidental injury causes it to inflame, and then it increases with wonderful rapidity, while the skin loses its natural colour, and becomes mottled or red in some parts and purple in others. In a few weeks the tumour attains a considerable bulk, and in proportion to its growth is rendered protuberant or lobulated; at the same time the veins on its surface are greatly enlarged and very conspicuous, and at no very distant period ulceration takes place in one or more spots, from which a fungus sprouts with the utmost luxuriancy. This fungus is of a dark red colour, extremely vascular, and commonly contracted about the neck, while the top is expanded and irregular. The disease having advanced thus far, soon contaminates the contiguous lymphatic glands, which are converted into a substance exactly resembling that of the original tumour. In the mean time the patient's health gradually declines, the countenance assumes a yellow cadaverous hue, the whole constitution is undermined by hectic, and death speedily follows.
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> "The morbid mass, when examined by *dissection*, exhibits appearances altogether distinct from those met with in any other disease. A very thin and undefined capsule invests the whole tumour, and, within this, lobes separated from each other by membranous partitions of soft pulpy matter, resembling *brain* in consistence and colour, compose the greater portion of the distempered fabric. In the midst of this medullary-like matter are often found cells filled with clotted blood; at other times small cysts are met with, containing a thin, sanious, and fetid serum. So extensively involved are all the textures in the neighbourhood of the tumour, that the muscles are often annihilated, or their structure so subverted as scarcely to be recognised, and the arteries, veins, nerves, and cellular membrane all blended together in one confused mass. When the lymphatic glands

and those in the course of the circulation are examined, they are found equally diseased, often throughout the body. The same may frequently be said of the liver, lungs, kidneys, and brains, all of which exhibit proofs of universal contamination.

"Fungus hæmatodes has been confounded with aneurisms, cancerous tumours, and other diseases; and I have known such mistakes attended with very serious consequences. From cancer, to which it bears a greater resemblance than any other affection, it differs in the following respects. The tumour of fungus hæmatodes is large, soft, and elastic, and to the touch imparts so deceptive a sensation of fluctuation, that a lancet has often been pushed into it—under an idea that it contained purulent matter. The scirrhous or cancerous tumour, on the contrary, is hard, solid, and incompressible, and in the advanced stages frequently shrivelled or contracted. Fungus hæmatodes, when dissected, is found to consist chiefly of a soft, pulpy, tenacious medullary-like matter. Cancer, when examined in the same way, exhibits a hard, fibrous substance, resembling cartilage, which occupies the centre of the tumour as a nucleus, and from this centre white narrow bands proceed irregularly towards the circumference. Fungus hæmatodes is almost invariably met with amongst children and young persons—cancer may be said to be almost peculiar to the old. Fungus hæmatodes occurs in organs which cancer never attacks—such as the brain, liver, kidneys, and spleen. Other distinctions might be pointed out, but these are sufficient to designate the complaint.

"The *eye*, according to late European writers on that organ, is particularly subject to fungus hæmatodes. In this country I have never seen more than three or four cases of the disease; these differed materially from cancer of the eye. The retina and optic nerve are the textures in which fungus hæmatodes usually commences, and the first symptom is an obscurity of vision, occasioned by a small shining tumour, which occupies the bottom of the posterior chamber, and may be distinctly seen by looking into the pupil. This tumour slowly increases, advances into the vitreous humour, and finally reaches the iris, behind which it appears so much like cataract as to be with difficulty distinguished from that disease. Soon after the whole eyeball loses its spherical form, becomes irregular or protuberant, the cornea ulcerates, and a large, soft, dark red or purple fungus is sent forth. When the diseased mass is removed by an operation and examined, it is found to consist of medullary-like matter throughout, and so exactly resembling in other respects the structure of fungus hæmatodes, as to render further description unnecessary. The circumstance of fungus hæmatodes commencing generally at the bottom of the eye, its attacking almost invariably children and young subjects, and the peculiar structure of the morbid mass, are sufficient proofs that the disease is distinct from cancer, which usually occurs in old people, originates in the anterior parts of the eye, and when dissected presents appearances very different from those just pointed out.

"The *testicle*, when affected by fungus hæmatodes, sometimes resembles hydrocele so closely, that the most intelligent and experienced surgeon is unable to decide between the two diseases. This deception, however, cannot endure a very long time; for after the fungus hæmatodes tumour attains a moderate bulk, the constitution shows evident marks of contamination, and the lymphatic glands of the thigh and groin are sensibly enlarged. It is hardly possible to confound the scirrhous testicle with fungus hæmatodes of the same organ. The one is very firm in its texture, and extremely heavy; the other soft, fluctuating, pulpy, and generally free from pain. When *dissected*, the structure of fungus hæmatodes of the testicle is better marked, perhaps, and affords more striking evidence of the genuine disease than is met with in any other part of the body.

Besides the testicle, fungus hæmatodes occurs primarily in the thyroid gland, lungs, liver, spleen, kidney, female breast, uterus, ovarium, and some other parts, and in every instance exhibits characters too distinct and regular to leave any doubt of its being unallied to cancer, or any other affection with which we are acquainted—notwithstanding the assertions of some of the French surgeons to the contrary." pp. 307—313.

Gonorrhœa. Among the *local* remedies for this disease, a solution of the *nitrate of silver* is recommended as far superior to any of the injections ordinarily used. Dr. G. states, that he has used it for the last thirteen years, and with the greatest success. He commences with three grains of the caustic to an ounce of water, and gradually increases the strength of the solution until it is sensibly felt by the patient. Used in this way, it effects a speedy cure. In some instances, considerable advantage has been derived from the caustic, when mixed with oil, and introduced into the urethra on a small bougie.

Syphilis. The following account of our author's experience in relation to the introduction of mercury into the system by *fumigation* is worthy of notice.

"This practice was known at a very early period, and indeed employed extensively in every form of syphilis, in preference to the internal use of mercury. It appears at one time to have been abandoned, but afterwards revived by Lalouette, a celebrated physician at Paris, who states, that during the space of thirty-five years, he had cured by means of it upwards of four hundred patients, after all the ordinary remedies had failed. Upon the recommendation of Mr. Abernethy, I commenced many years ago this plan of treatment, and found it greatly to exceed my expectations,—producing in a very short time a decided impression, after the system had resisted for weeks or months the operations of calomel and the blue pill. It is well known, indeed, that there are many patients upon whom these and most other preparations of mercury fail to induce a salivant effect—which is afterwards brought about very speedily by fumigation. This circumstance has been adduced as an objection to the general employment of the remedy, inasmuch as it is difficult to introduce into the system a sufficient quantity to insure permanent benefit—owing to the rapidity with which the mercury operates when thus administered.

"There are two or three modes of conducting the fumigating process; one of which, and perhaps the most simple, is to seat the patient, who is previously stript to the skin, in a common arm chair, and surround the whole body, with the exception of the head and neck, with thick blankets. Beneath the chair is then placed a common iron pot or chafing-dish, full of live coals, and over this a thin sheet of iron, the surface of which, when heated, must be strewed with some mercurial preparation capable of volatilization. The fumes ascending, penetrate the skin in every direction, and enter perhaps the lungs. A copious perspiration is usually the result of the operation; and to prevent the patient from taking cold, he should be carefully wrapt in the blankets and conveyed to bed.

"Another method, more complicated and perhaps not more effectual, is to enclose the patient in a box, resembling a sedan chair, having an opening at the top to let out the head, and another at the bottom holding a small furnace. The preparations usually employed in either process are factitious cinnabar, the black sulphuret of mercury, or else a grey powder, formed by mixing together four ounces of calomel, two drams of aqua ammoniæ and six ounces of distilled water. This powder is separated by filter, and dried, and is preferred by Mr. Abernethy to any other in use.

"The great advantage possessed by fumigation over the common modes of introducing mercury is, as before mentioned, its speedy operation, which renders it particularly valuable in all those ulcerations of the throat and nose, which are rapidly spreading, and threaten destruction to the delicate parts amongst which they are seated. From extensive experience, I can recommend the plan, in all such cases, with the utmost confidence. Nor have I found it less effectual in dispelling venereal discolorations of the skin and blotches." p. 363—365.

Chapter VII. treats of Fractures.

Chapter I., of volume second, is devoted to *Luxations*, and the mode of managing them.

Chapter II. In this chapter we have an account of the various *diseases of the bones and joints*, as caries, necrosis, exostosis, spina ventosa, osteo-sarcoma, mollites ossium, fragilitas ossium, rachitis, coxalgia, fungus articuli or white swelling, hydarthrus, ecphyma cartilagineum, or moveable cartilage, anchylosis, deformity of joints.

Caries. In the treatment of this disease, Dr. G. reprobates the practice of removing the carious bones by the actual cautery, or by instruments, as having been productive in his own experience of very injurious effects. Partial benefit has been derived from the ancient practice of touching the diseased bone with some of the *mineral acids.* By Dr. Physick, the gastric juice of animals, particularly that of the hog, has sometimes been found useful as a local application. In cases of constitutional caries, blisters, issues, setons, and steady purging are recommended.

Spina ventosa. Our author thinks Sir Astley Cooper, and some other writers have improperly described this disease as a species of exostosis.

> "It differs from it in many respects. The exostosis is small, firm, solid, and incompressible. Spina ventosa, on the contrary, usually attains a much larger bulk than exostosis, involves the whole circumference of a bone, and, when dissected, is found to consist of a mere osseous shell perforated with numerous holes, and containing sometimes a thin sanies mixed with loose portions of lymph, or of a substance resembling cheese. It is to this disease Mr. John Bell* alludes when he says, "The solid bone, whether radius or thigh bone, is annihilated, and a mere shell of osseous matter substituted in its place, and that in a manner so peculiar, that it must seem to the unintelligent observer, as if the small and solid bone had been expanded into an extensive and flat plate of osseous substance, whereas the process is in truth very simple and very intelligible. The bone dies by piecemeal of ulceration, or what, in technical language, is termed caries, and is conveyed away by absorption; but the bone being dead, the surrounding membranes—viz. the periosteum and tendinous expansions, which once formed a part of its system of circulation, continue still alive, and ready to secrete new bone; and thus it happens, that while carious abscess preserves a large cavity full of foul matter, the surrounding membranes continue secreting bone, which, like a shell, thin and expanded, covers this cavity, and forms the walls of the tumour, of which some part is composed of thin expanded bone, resembling a cranium, some of cartilage, some of thickened membrane; and this shell is formed in proportion as the original fabric of the bone is destroyed."

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* Principles of Surgery, vol. iii. p. 59.

"The cylindrical bones are commonly the seat of spina ventosa; though I have met with the disease, in two or three instances, among the flat bones. The finest specimen I ever saw, was sent to me a few years ago by Dr. Stevens of New-York. It occupied the radius of the left arm, and the bone, nearly from the elbow to the wrist, was expanded into one or more irregular shells, the size of a cocoa-nut, and contained a thin steatomatous matter.

"*Treatment.* When the smaller bones, such as the phalanges of the fingers and toes, are affected with spina ventosa, a cure may sometimes be produced by moderate long-continued pressure directly over the tumour; at other times, I have succeeded by making an opening into the cavity, and by stimulating injections, or by cutting instruments, exciting such a degree of irritation, as to cause it to fill up with granulations. In this way I once cured an obstinate spina ventosa of the lower jaw, about the size of an egg. Should any of the large cylindrical bones be involved, and the tumour attain a large size, nothing less than amputation will be likely to answer. This was successfully resorted to in the case of Dr. Stevens's patient." p. 62—64.

Coxalgia, or hip disease. The most important suggestion here in relation to the treatment of this dreadful disease, is that of long continued purging; a practice introduced originally by Dr. Physick. Our own experience has satisfactorily convinced us of its high utility.

In Chapters III. and IV. is taken up the subject of *diseases of the arteries and veins,* in which we perceive nothing new. In relation to the operation of tying the *arteria innominata*, the following sentiments are expressed.

"The project of tying the *arteria innominata*, in certain cases of axillary and subclavian aneurism, has been suggested by different surgeons; and my friend Dr. Mott, of New-York, was bold enough, a few years back, to try the experiment—but without success. A similar operation has since been performed in Sweden, and with a similar result. I have no disposition to condemn these attempts, because every effort towards saving the life of a fellow-creature, when he must necessarily perish without relief, should be deemed praiseworthy; but I cannot help thinking that the chance of success must necessarily (owing to the great size of the innominata, its contiguity to the heart, and the probable diseased condition of its coats) be so very limited, in most cases, as not to justify the practice. Another objection, and a very strong one, that might be urged against tying the innominata is this—that subclavian and axillary aneurisms have often been cured spontaneously." p. 138—139.

Aneurism from anastomosis. As illustrative of the mode in which, according to Dr. Gibson, this disease ought to be managed after it has attained an inordinate bulk, the following case is detailed.

"Elizabeth Lausher, a married woman, twenty-five years of age, residing in the neighbourhood of Reading, came to Philadelphia in the month of April 1823, anxious to obtain relief for a very large pulsating tumour, which nearly covered the right side of her head, and sometimes bled so profusely from numerous ulcerated spots on its surface, as frequently to endanger her life. This tumour had existed from infancy, but its increase was so gradual, and the pain attending it so inconsiderable, that it gave her little uneasiness. After her marriage, however, and especially during her second pregnancy, (in which she was advanced four months at the time I saw her,) the growth of the swelling was so rapid, its pulsation so alarming, and the hæmorrhages from it so frequent and debilitating, that she was prepared to submit to any operation I might propose for her relief. I was aware at once of the nature of the disease, and saw plainly the necessity of acting promptly and decidedly. To have dissected off a tumour of such magnitude, and so extremely vascular, at a *single* operation, would have been little better than madness. I resolved to proceed in a very different manner, and having placed my patient in a private department of the Alms-House Infirmary, I commenced without delay a series of operations. My first object was to cut off temporarily the chief supply of blood to the tumour. With this view, I made several incisions, each about an inch long, through the scalp, and at some distance from the margin of the tumour, and tied the chief branches of the occipital and temporal arteries, many of which were enlarged to the size of the common carotid. Having in this way encircled the diseased mass, I had the satisfaction to observe the pulsation diminish, and the tumour partially to shrink; the hæmorrhage, also, from the surface had ceased. A slight erysipelas of the scalp followed the operation. This occasioned a week's delay; in the mean time, the blood was evidently finding its way again through the anastomosing vessels to the tumour. An incision was made about two inches long, by a single stroke of the knife, through the integuments to the bone, commencing near the back part of the ear, and midway between the edge of the tumour and the line at which the arteries were taken up in the first operation. An incredible quantity of blood issued in a moment from every part of the wound; in a few moments, however, by the dexterity of Drs. Horner and Lawrence, every vessel was secured. The cut was then repeated to the extent of three inches more, and the vessels in like manner secured. By this time the patient was so extremely faint, as to render it impossible to proceed further; indeed, many of the spectators supposed her to be dying. Without delay, therefore, she was conveyed to bed, and the wound dressed (by interposing lint between its edges to prevent their re-union.)

In ten or twelve days the patient had so far recovered her strength, as to enable her to submit to a further incision of the scalp, commencing at the place where the last operation had terminated. This operation was also continued as long as the patient could bear it, or as was deemed prudent. Lint was then placed in the wound, and the patient put to bed, and carefully nourished for a fortnight, at which time the third and last operation was performed—by dividing the remaining portion of the integuments, and removing the tumour from the bone. This was accomplished with comparative facility, the tumour being by the preceding operations nearly drained of its blood, and almost insulated. Care was taken in separating the diseased mass not to remove the pericranium; the bones, therefore, notwithstanding a great portion of the parietal and occipital was exposed, did not exfoliate, but were covered in a few days by florid and healthy granulations, the edges of the wound gradually approximated, and were so far closed in four or five weeks, as to enable the patient to return to the country, where in a little time longer her health was perfectly re-established, and at the end of the usual period, she was delivered of a promising son." p. 152—155.

In Chapter V. *Injuries of the head* are treated of.

Chapter VI. In this chapter, the much-neglected but important subject of *Diseases of the Ear* is considered. For the proper understanding of these, much may be gained by a simple classification founded upon the different parts of the ear that may be affected. The classification of Dr. Gibson answers every practical purpose, and is about as good as any we have seen.

Diseases of the external ear, and meatus auditorius. The external ear is liable to wounds and frost-bites, &c., by which the whole or the greater part of it may be lost. A loss of hearing does not necessarily follow such accidents, as cases are upon record of persons born without external ears, who nevertheless enjoyed the sense of hearing to a certain extent. The *lobe* is the part of the ear most frequently the subject of disease. In negroes Dr. G. has known many instances of sarcomatous tumours, resembling in shape the prickly pear, arising from the use of brass earings. Encysted or steatomatous tumours are also very common. They generally occupy the centre, and seldom increase beyond the size of a pea. The *meatus auditorius* is liable to several accidents and diseases. Extraneous bodies, such as beads, peas, worms, insects, &c. frequently get into the meatus and excite much irritation. The *cerum* or wax of the ear frequently accumulates in undue quantity, and thus affects the hearing. *Suppuration* of the membrane lining the meatus, is a very common affection in children, and if long continued, not unfrequently destroys the membrane tympani and small bones of the ear. *Polypi* also occasionally spring from the bottom of the passage, or from the sides of the membrane, and frequently cause deafness by filling up the ear. The meatus is also subject to an *herpetic eruption*, occurring chiefly in scrofulous subjects. The discharge is exceedingly offensive, and often so copious and thick as to close up the passage. Occasionally the eruption extends to the external ear. In some very rare cases there has been known to be a congenital imperfection in the meatus auditorius, originating either from a thin membrane covering the orifice of the passage, or from the whole tube being filled by a tumour, or by a coalescence of its sides.

Treatment. For sarcomatous tumours the only remedy is excision. Encysted or steatomatous tumours are to be dissected out in the same way as when they occur in other parts of the body. Extraneous bodies introduced into the meatus auditorius, may be removed by a slender forceps or a bent probe. When insects find their way into the ear, they may be got out by pouring oil into the ear. They may also be destroyed by the smoke or infusion of tobacco. For hardened wax the best solvents are warm water, and soap and water. *Suppuration* of the living membrane of the meatus auditorius, is to be treated by antiphlogistic remedies, succeeded by moderately astringent injections. For the removal of *polypi* the use of the forceps is recommended; and to remove the remnants of the disease, lunar caustic may be used. For *Herpetic eruptions* the best remedies are the internal use of calomel, and a weak solution of corrosive sublimate as an injection. In cases of *imperforate* meatus auditorius, the passage has sometimes been restored by dividing the membrane which closes it, and afterwards wearing a tent to keep it up.

Diseases of the Tympanum and Eustachian tube. Otalgia or ear-ache, is generally the result of an acute inflammation of the membrane lining the cavity of the tympanum. The pain frequently extends from the ear to other parts of the head, accompanied by fever and delirium. If the disease continues for any length of time, suppuration most usually ensues, and matter collects not only in the cavity of the tympanum, but in the mastoid cells and eustachian tube. Generally this matter is ichorous, sometimes sanious, and by its pressure the membrana tympani is destroyed, and discharged along with one or more of the small bones of the ear. From the inflammation attending the disease, the eustachian tube is also frequently obliterated, and from both these causes, permanent deafness frequently follows. Caries of the tympanum and mastoid cells, &c. is a frequent consequence of this disease.

The *eustachian tube* is often closed, independently of any disease of the tympanum, from the sloughing or ulceration which succeeded cynanche maligna, syphilis, the immoderate use of mercury, &c.

> "In all such cases, partial deafness ensues, owing to the air within the tympanum being confined, or absorbed, or to the cavity being filled by mucus. The membrana tympani, in either event, is incapable of the requisite degree of vibration, and the patient's hearing is thereby rendered very indistinct, or entirely destroyed. It is not always easy to discriminate between this variety of deafness and that proceeding from other causes. Much information may be gained, however, from accurate inquiries into the history of the complaint, and by directing the patient to close the nostrils and mouth, and blow forcibly with his breath, which, if the eustachian tube be closed, will not enter the cavity of the tympanum and communicate an impulse to its membrane or drum, as generally happens when the guttural extremity of the tube is pervious. Moreover, patients, deaf from closure of the eustachian tube, are seldom disturbed by those unpleasant sounds in the ear which so commonly accompany nervous deafness." pp. 211.

Treatment of Diseases of the Tympanum, &c. In inflammation of the ear, Dr. G. very justly condemns the common practice of making stimulating applications with a view of relieving the pain.

"General and topical blood-letting, purging, blistering, &c. in the commencement of the disease, are the proper remedies. If by these means suppuration be not prevented, and the matter is rapidly accumulating, the surgeon, without delay, should make a small opening with a sharp-pointed probe or couching needle in the membrana tympani, and evacuate the matter; otherwise, the whole of this membrane may be destroyed by ulceration, the ossicula discharged, and the hearing irrecoverably lost. After the inflammation has subsided, astringent injections may be employed to correct and suppress the discharge. If fungous or polypus excrescences sprout from the tympanum and fill up the meatus, they should be removed by the forceps and lunar caustic.

"For the relief of deafness arising from obliteration of the eustachian tube, an ingenious expedient was suggested many years ago, by Sir Astley Cooper—the perforation of the membrana tympani. This operation, as was correctly imagined, served the purpose of admitting the external air to the tympanum, and thereby, for a time, restored the patient's hearing. It was soon found, however, in most instances, that the benefit was temporary—owing to the inflammation excited by the puncture, producing an induration of the membrane, and a consequent loss of vibratory power. The opening in the membrana tympani, in other cases, moreover, was found to close speedily after the operation. For these and some other reasons, the operation is now seldom practised. Should it ever become necessary to resort to it, a small sharp-pointed probe will answer all the purposes of the regular and more complicated instruments—care being taken to select such cases of deafness only, as are dependent upon closure of the tube, and in performing the operation to avoid perforating that part of the membrane to which the handle of the malleus is attached.

"Some of the English and French surgeons have contrived instruments for cleansing the eustachian tube, when clogged with mucus or extraneous bodies. The difficulty, however, of introducing the pipe of a syringe or probe into the guttural extremity of this passage, has deterred most persons from attempting the operation." pp. 212—214.

Diseases of the internal ear. That variety of deafness called *nervous*, may originate from one or other of the following causes. 1. On unusual hardness of the auditory nerve. 2. A diminution of the nerve. 3. A thickening of the membrane of the labyrinth. 4. The formation of a steatomatous or caseous substance within the cavity of the vestibule. 5. Calcareous matter in the vestibule. 6. Malformation of the vestibule, semicircular canals and cochlea.

"If from these, or other causes, nervous deafness should arise, it will be indicated, in most instances, by tinnitus aurium, or ringing in the ears, by unpleasant and peculiar sounds, resembling the dashing of waves, the murmuring of bees, the roaring of a cataract or water-fall, the hissing of a tea-pot, the rustling of leaves, the singing of a conch or shell, the vibration of the stethescope, and many other strange, and to the patient, unaccountable noises. These symptoms are most urgent during winter, at night, and in cloudy weather, and whenever the patient has taken cold. Most patients, indeed, troubled with nervous deafness, are peculiarly susceptible of cold; from this, and from other causes, there is a diminution of the ceruminous secretion, and, consequently, a peculiar dryness or huskiness of the meatus auditorius. Despondency is a frequent concomitant of nervous deafness." pp. 216.

Treatment of diseases of the internal ear. For confirmed nervous deafness nothing can be done. In the commencement of this affection, it may sometimes be arrested by bleeding, purging, low diet, blisters to the back of the neck, &c. Great care should be taken that the patient do not suffer from exposure to cold; to counteract the susceptibility to cold, Dr. Physick directs common salt to be rubbed upon the skin and head. When nervous deafness is caused by syphilis, which it sometimes is, it may generally be removed by a course of mercury.

We have now given a very full analysis of the chapter on diseases of the ear, not because we think it by any means perfect, but because we are desirous of drawing attention to this important subject. We are much in want of a good scientific treatise on this department of medical science, and we could wish that the task might be undertaken by some competent person.

Chapter VII. treats of *Diseases of the Eye;* but we do not find in it any thing which may not be more advantageously learned in some of the excellent treatises written expressly on this subject.

Chapter VIII. relates to *diseases of the nose and antrum*—as polypus of the nose—ozœna and polypus of the antrum.

Chapter IX. *Diseases of the mouth*—as hare-lip—ranula—malformation of the frænum linguæ—enlargement of the tonsils—elongation of the uvula—Epulis or tubercle of the gums.

Enlarged tonsils. In removing these by ligature, it has been the usual practice to suffer the ligature to remain for several days until the tumour elongated away. The irritation thus occasioned about the fauces, tongue, and mouth, must necessarily be very great. To obviate these inconveniences, the following method has been proposed by Dr. Physick.

> "The operator takes a double canula about four inches long, and passes through it, doubled, a piece of soft, flexible, iron wire, one-twenty-fourth part of an inch in diameter, secures one end of the wire to an arm of the canula, and permits the other end to project about five or six inches beyond the opposite barrel of the instrument. The canula being thus armed, the loop of wire is spread out to a sufficient extent to pass over the tumour, and is bent a little to one side that it may with the greater facility approach its base. An assistant holds down the patient's tongue with the handle of a large spoon, while the operator conveys the wire over the base of the tumour, and taking hold of its projecting end, draws it loosely in order to ascertain whether it is properly fixed. Finding this to be the case, and that the uvula is not included, the end of the wire is then seized with a pair of flat pliers, drawn as firmly as possible, and secured by wrapping it around the remaining arm of the canula. The wire, thus applied, should be permitted to remain on the tonsil *twenty-four hours*, and then disengaged in the following way. The canula being firmly held with one hand, the other is employed in loosening the end of the wire from the arm of the instrument; having accomplished which, the surgeon straightens the wire with the pliers, and pushes it backwards until it is removed from the tonsil. In a few days the tumour drops off entire, or in fragments, and the ulcer left heals without difficulty." pp. 318—319.

Chapter X. *Diseases of the neck*—as extraneous bodies in the œsophagus—stricture of the œsophagus—Extraneous bodies in the larynx and trachea—Ulceration of the Glottis—Bronchocele—Wry Neck.

Chapters XI. and XII. treat of *diseases of the Thorax and Abdomen*—as Hydrothorax—Ascites—Poisons in the stomach—Hernia.

Poisons in the stomach. The notice of this subject by our author is very deficient. The only thing of interest which it contains, is the following statement in relation to the removal of poisons from the stomach, by means of the tube and syringe.

"By whom the idea was first suggested, is not positively known.* Renault, however, in his work on poisons,† expressly recommends an apparatus (somewhat similar to the one now in use) for removing arsenic from the stomach. Dr. Monro, afterwards, in his thesis,‡ gave drawings of instruments for the removal of laudanum from the stomach, and at the same time published a case in which the experiment had been tried—though without success. "Quo laudani effectus leniores essent ei in ventriculum, instrumento in tab. XIV. depicto, per magnam, aquæ tepidæ quantitatem injeci, faucibus simul per oris speculum diductis."§ It remained, however, there is reason to believe, for Dr. Physick to prove the utility of the invention; for until the successful issue of the experiment performed by him in 1812, on a child of three months old, poisoned by laudanum,‖ little importance was attached by the profession either to Renault's or Dr. Monro's proposal. Since that period every apothecary's boy in Philadelphia has become fully acquainted with the operation, which, perhaps, has been performed hundreds of times with the most favourable result. Strange as it may appear, European, or at least British surgeons are just becoming acquainted with the practicability of the operation, for we find from the statements of a Mr. Read, and from remarks in the periodical work called the "Lancet" that the proposal has been considered by Sir Astley Cooper, Messrs. Scott, Jukes, and other surgeons, as perfectly novel, and this so late as the year 1822!!" pp. 362—363.

Hernia. In the treatment of hernia in young subjects, Dr. Gibson recommends the use of the ligature, drawn with sufficient firmness to occasion the parts included to slough, and the edges of the umbilical ring to cicatrize.

"The ligature was frequently employed by the ancients, in the cure of umbilical hernia of *young subjects*, and in modern times has been extensively used and highly extolled by Dessault. In several instances I have performed the operation with complete success, and with little pain or inconvenience to the patient. There is no risk in the operation, provided the surgeon succeeds perfectly in restoring the protruded parts to the abdomen, before he ventures to apply the ligature; which should be of considerable thickness and strength, and drawn so firmly as to ensure the speedy destruction of the parts surrounded by it. After the slough is detached, the sore that remains may be dressed with dry lint or some mild ointment until perfectly healed. For two or three months afterwards it will be proper to support the new formed cicatrix by a compress or truss, to guard against its laceration, and the consequent reproduction of the disease." pp. 408.

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* A tube and syringe for removing poisons from the stomach, is recommended, as my friend Dr. Coxe informs me, in one of the editions of Boerhaave's Chemistry.

† Experiences sur les contre poisons de l'arsenic, 8vo.

‡ De Dysphagia, Edinb. 1797.

§ De Dysphagia, p. 95.

‖ See Eclectic Repertory, vol. iii. p. 111.

Chapter XIII. *Diseases of the rectum*—prolapsus ani—tumours within the rectum—hæmorrhoids—fistulo in ani.

Prolapsus ani. By Dr. Physick this disease is said to have been sometimes cured by confining the patient for a length of time, to a diet of rye mush and sugar.

Chapter XIV. *Diseases of the testicle*—embracing hydrocele—hæmatocele—fungus of the testicle—phymosis—paraphymosis.

Chapter XV. *Diseases of the urethra and bladder*—including stricture of the urethra—fistula in perinæo—enlarged prostate—retention and incontinence of urine—urinary calculus.

Lithotomy. The following precepts in relation to this operation, are well worthy the consideration of the young surgeon, and as such we extract them.

1st, "To examine *minutely* every instrument, before it is used, especially the gorget and staff. If the cutting edge of the former be not extremely sharp, it will not divide the prostate gland, but pushing it forward, will pass between the bladder and rectum, and deceive the surgeon, who, supposing that he has opened the bladder, thrusts the forceps into the wound, makes fruitless efforts to extract the stone, and, perhaps, may tear away, as has happened, the prostate and part of the bladder. If the gorget be not accurately fitted to the staff, it may be discovered during the operation, and at the critical moment of pushing the instrument into the bladder, that the beak is too large for the groove. Under these circumstances, should the operator persevere, in his attempts to thrust the gorget home, great mischief may ensue. The *size* of the gorget must always be proportioned to the age and size of the patient. A gorget, for an adult, should never exceed in breadth three-quarters of an inch, and, for most patients, one five-eighths of an inch will answer. Children seldom require an instrument beyond three-eighths of an inch in width. An unusually wide gorget always endangers the pudic artery. The most experienced lithotomists, however, of ancient and modern times, have always inculcated, and, as I conceive, justly, a free incision of the prostate and neck of the bladder, rather than tear these parts, in attempting to get out a large stone. How then can this be accomplished unless a *broad* gorget be employed? The answer is very easy. The chief object of the gorget is to make an opening into the bladder; if this opening is sufficiently large to admit the finger of the surgeon and enable him to touch the stone, this is all he can require. Finding, by the feel, the stone too large to come away through the tract made by the gorget, the *curved probe-pointed bistoury* is at hand, and with this the wound may be instantly enlarged to the requisite extent, and without exposing the pudic artery. In running the gorget along the staff, through the prostate and bladder, care should be taken to *depress* its handle, in order that the blade may be sufficiently elevated to pass in a line corresponding with the axis of the pelvis. This the operator sometimes finds it difficult to accomplish, owing to the blade of the gorget being made as broad near the handle of the instrument as at its point, and on this account not calculated to rest in the lower angle of the incision. To obviate this difficulty, I have, for several years past, had the blades of gorgets so constructed, as gradually to taper from the outer corner of the cutting edge to the handle of the instrument.

2d, "If the surgeon from timidity, or any other cause, does not make his incisions in the perinæum ample, but leaves some of the fibres of the transversalis perinæi muscles uncut, he will find, in attempting to extract the stone, great resistance, and a constant tendency in it to slip from the grasp of the forceps. This resistance usually arises from the fibres of the transversalis perinæi alter. In such a case the fore finger of the left hand should be carried towards the bottom of the wound to depress the rectum, while the remaining obstruction is removed by the knife. A wound of the rectum will not prove so serious an accident as some have represented; but it should nevertheless be carefully avoided.

3d, "The lithotomy forceps are, in general, made unnecessarily large and clumsy; so large, indeed, as often of themselves to fill up the opening through the prostate. The teeth, too, on the inner surface of the blades, are often so large, as to act like wedges, and break the stone the moment it is grasped. For a child, a forceps very little larger than the common pocket-case instrument, will serve a better purpose than the one usually employed; and the smallest forceps contained in the lithotomy case, provided the handles be somewhat lengthened, will answer for an adult.* If a stone should be so large as to require breaking, a strong pair of forceps, with a screw in the handles, will prove more effectual than the complicated instrument of Mr. Henry Earle. Although I have had occasion, however, in three instances, to break large stones, I have never experienced any difficulty in effecting it with the common forceps. Frequently, a stone will break under very moderate pressure of the forceps, and when the surgeon is unwilling for it so to do. In this event, great patience and gentleness must be exercised in extracting the fragments by the scoop, and by injections of barley-water. It sometimes happens that one portion of a stone is imbedded in a cyst in the coats of the bladder, while the other projects into its cavity. This happened in a case, upon which I operated last spring, at Alexandria, under the care of two distinguished physicians of that place, Drs. Washington and Sims. Having seized the stone with the forceps, the projecting half broke off, and the remainder, with great difficulty, I was obliged to scoop out of the cyst with my finger. The patient had long suffered from the disease, was greatly exhausted before the operation, and died ten or twelve days after it. Some years ago, I operated on a young man in the Alms-House Infirmary, and took from his bladder a stone about the size of a walnut, and afterwards introduced my finger to ascertain if there were any others left, when to my great surprise, I discovered that the fundus of the bladder, for a considerable extent, was encrusted with calculous matter, which I peeled off in successive layers, some of which were nearly half an inch thick. This patient perfectly recovered. Under circumstances such as I have detailed, the surgeon should never for a moment lose his self-possession, but proceed cautiously and gently, but firmly, until he has effected his purpose. In the common operation of lithotomy, too, it should never be necessary to pull violently with the forceps, but the instrument must be humoured, and its position changed, and twisted gently in a variety of directions.

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* My colleague in the Alms-House Infirmary, Dr. John Rhea Barton, has invented a pair of lithotomy forceps (with an oval hole in each blade, resembling the midwifery forceps, and not unlike the old polypus forceps of Heister) well calculated, it appears to me, to hold a small stone, and prevent it from slipping.

4th, "The *after treatment* of lithotomy is oftentimes more important than the operation itself; and the surgeon would do well never to operate, unless he could attend the patient throughout the whole course of his confinement. The shock communicated to the system by the severity of the operation, is sometimes such as greatly to endanger the patient's life, and, indeed, some have actually died on the table, or a few hours after—reaction having never been established. So long as this state of the system continues, stimulants must be employed. After reaction takes place, then inflammation must be guarded against, and to prevent this, the antiphlogistic system, to the necessary extent, will be naturally resorted to. pp. 499—505.

Chapter XVI. relates to amputation.

We have now finished our analysis of Dr. Gibson's work, from which we believe we have culled every thing not perfectly familiar to most of our readers. As a treatise on the "Institutes and Practice of Surgery," a title of no very humble pretensions to be sure, we fear that it is not destined to rank very high: as a *text book*, (a department of medical literature to which our brethren of Philadelphia seem to be very much devoting themselves) it may, and doubtless will be very useful to the students who attend upon the author's oral instructions. At the same time, we think many of the subjects may be much more advantageously studied in other treatises.

Before we conclude, we cannot omit alluding to a circumstance which has struck us very forcibly throughout the whole perusal of this work. And this is, the wonderful self-complacency with which Dr. Gibson is incessantly quoting himself. From this book one would almost be induced to believe, that all the surgical wit and wisdom of the country were concentrated in Dr. Gibson and one or two of his colleagues. Now, although we have no objections whatever to any good opinion which the author may entertain of himself or of his friends, we cannot refrain from telling him, that if he had extended his vision a little beyond the latitude of Philadelphia, if indeed he is capable of such an effort, he might have found some materials, which would not have made his book much worse than it is; at the same time, that he would have shielded himself from an imputation which we shall not at present name.

QUARTERLY HISTORY

OF

IMPROVEMENTS IN MEDICINE AND SURGERY.

Foreign.

ANATOMY AND PHYSIOLOGY.

M. Simon on the Secretion of the Bile.—"The secretion of the bile presents a very interesting problem of physiology, for the solution of which experiments have been made several times, that have proved ineffectual, on account of the difficulties which accompany the ligature of the vessels of the liver. In order to determine whether arterial blood, or blood from the vena porta, furnishes the materials necessary to this secretion, it has been conceived that we must have it in our power to tie either together or separately the excretory canals, and the vessels which convey to the liver two kinds of blood. The ligature of these vessels, which had been judged impossible, may, however, be practised with greater or less facility on certain species of animals; upon rabbits, for example, it is very easy, but on account of the little colouration of their bile, the results afforded are very inconclusive; and, on the contrary, when pigeons are made the subject of experiment, a still greater difficulty is encountered, on account of the hepatic artery. But we can draw from them positive inferences:—

"1st. *Ligature of the Excretory Canals.*—The bile continuing to be secreted, and its evacuation impeded, the liver becomes choked up, and filled with globules of a fine green tint. This colour is diffused over the whole surface of the organ, and effects the adjoining parts. The green tint is the best marked, the older the animal is, and the longer it survives.

"From ten to twenty hours after this ligature, the animal discharges by the anus matter absolutely green, and of the colour of the bile, with which the liver is overloaded. This colouration of the excrements augments in intensity even to death, and satisfies us that the green matter to which it is due exists solely in the cloaca, or that it is deposited by the ureters. This fact, when viewed in connexion with the observations of Messrs. Dumas and Prevost, who have proved that the billiary secretion was increased by the interruption of that of the urine, prove, that the kidney and the liver compensate more or less completely for the excretion of the product of their secretion, when it cannot take place through natural channels.

"2dly. *Ligature of the Excretory Canals, and of the Hepatic Artery.*—Twelve hours after having fixed these ligatures, the surface of the liver assumes a yellow tint, which colours also the adjacent parts; the canals are overloaded, and announce the presence of bile. Twenty hours after the ligature, the liver is found to contain a great quantity of green granulations, more numerous in the left than in the right lobe; the cloaca contains green matter, as in the preceding case. If the life of the animal be prolonged even to forty hours, the green colour of the liver and of the excrements becomes more deep.

"These last experiments are calculated to prove, that the secretion of the bile continues a long time after the liver has ceased to receive arterial blood.

"3dly. *Ligature of the Artery alone.*—In this case the liver is not choked up, since the excretory canals are free; but after death, it must be acknowledged, that the secretion did, notwithstanding, take place; for we find bile in these canals, and the matters contained in the intestine present the bilious tint, as in the natural state.

"4thly. *Ligature of the Roots of the Vena Porta and of the Hepatic Canals.*—The liver is then entirely discoloured, and shows no longer any thing more than a tint of a pale rose colour, like that of the lungs of birds; we do not meet with any trace of bile; the intestine contains only a grey or white pulp; the cloaca is filled with excrements destitute of any mixture of a green colour, and notwithstanding all this many pigeons have survived the ligature even thirty-six hours. If we tie only the principal trunk of the vena porta, and if we suffer the gastro-hepatic veins to enter it, the right lobe which receives them is, after fourteen hours, in the natural state, while the left is discoloured, and presents on its surface some traces of bile.

From these four series of experiments, the results of which accord perfectly together, we may conclude:—

1st. That the ligature of the hepatic artery does not prevent bile being found.

2dly. That the presence of this bile is manifest, when we tie at the same time the excretory canals.

3dly. That it does not appear doubtful but that it is the blood of the vena portæ which contributes to the secretion of bile, since the ligature of this vessel stops this secretion.—*Anderson's Quarterly Journal.*

M. Cruveilhier on the Texture of the Liver.—From injections of liquids, variously coloured, into the vessels of the liver, and the excretory canals of the bile, M. Cruveilhier infers;

1. That the granulations of which the liver appears to be composed, are surrounded with a dense cellular tissue, of a whiter colour than the granulations themselves.

2. That the ramifications of the hepatic artery are spread out in this cellular envelope.

3. That the ramifications of the vena porta surrounds the granulations themselves.

4. That the radicles of the supra-hepatic veins and those of the excretory canals are in the centre of the granulations.—*Ib.*

Pulmonary Absorption.—The important relations of this subject lead us to notice the researches made by M. Piollet, a French military surgeon, a report of which has been made to the Parisian Academy. (*Arch Gén.*) This gentleman has, it appears, made series of experiments to elucidate the subject, of a date more recent than those made by M. Meyer, which were noticed in our number for May 1825. His first attention was to the question of the penetration of water into the air passage in cases of submersion, on which there has so long been a difference of opinion. The fluid selected for the experiments by M. Piollet was oil, as he considered that although the use of coloured fluids enabled the experimenter to ascertain the fact of their penetration into the lungs, it did not give him any power of appreciating the quantity so admitted. When animals were drowned in oil,—dogs, cats, or rabbits being the subjects of the experiment,—he always found from two to four ounces of that fluid in the air-passages; and there was a constant relation between this quantity and the capacity of the respiratory apparatus. The reporters on these trials of M. Piollet think, that the disagreement subsisting on this subject depends on the circumstance of water being found or not found in the lungs of drowned persons, according as such unfortunate individuals have or have not made attempts to breathe after falling into the water. With respect to the obstacle created by this penetration of fluid towards the recovery of drowned persons, M. Piollet has satisfied himself by some further experiments: for instance, he strangled six dogs in the same manner, having previously injected into the lungs of three of them, four ounces of water; and found that the dogs, into the lungs of which such injection was made, ceased to move sooner than the others, and could not afterwards be brought to life, whilst all those of which the lungs were not injected were revived. Directing his inquiries to the manner in which the water which has penetrated into the lungs of drowned persons is removed when they are resuscitated, M. Poillet thinks he has proved it to be by absorption. Having submersed several animals in a solution of prussiate of potash, he was able to ascertain the presence of that salt in the pulmonary veins, in the left cavities of the heart, and in the whole arterial system; and for the purpose of discovering the time required for conveying the fluid employed into the arterial and venous blood, he laid bare the crural artery and jugular vein of a dog, into the lungs of which he had injected four ounces of a solution of prussiate of potash; and withdrawing a little blood every minute from the artery and from the vein, he found traces of the salt to appear at the fourth minute in the arterial, and at the seventh minute in the venous blood. Having killed and opened the animal ten minutes after making the injection, he found traces of the salt in the right cavities of the heart, but less than in the left, and also in the bronchial glands, in the kidneys, and even in the urine. In the last place, M. Piollet made some experiments tending to prove that pulmonary absorption applies to gases, vapours, and miasmata, as well as to liquids he confined his head in air charged with turpentine, alcohol, and putrid miasmata, the rest of his body being in a healthy atmosphere, and found, after some minutes, that in the first case his urine had acquired the odour of violets; in the second he experienced all the phenomena of intoxication; and in the third, the intestinal gases and fæces exhaled a decidedly cadaverous odour.—*Lond. Med. Repos. and Rev.*

THEORY AND PRACTICE OF PHYSIC.

[Observations of DR BAILLIE, concluded from page 136.]

Of Diseases in the Cavity of the Abdomen.

Ascites.—With respect to this disease I have very little to say. When it depends upon a morbid state of any of the abdominal viscera,—as, for instance, the liver or the spleen,—it is never permanently removed, and very seldom even relieved, till the morbid condition of these viscera is cured, if this event should fortunately take place. Even where the viscera in the abdomen are sound, or at least cannot be discovered by an accurate examination to be otherwise, ascites is rarely, according to my experience, cured by medicine. The ordinary diuretic medicines, as squills and digitalis, have commonly very little effect upon it. The medicines which I think, upon the whole, to have most influence upon this species of dropsy, are supertartrate of potash and small doses of elaterium. In two, or perhaps three cases, during my medical experience, ascites has gradually got well without medicine, after the common remedies had been sufficiently tried and had failed. I can entertain no doubt, from some late publications, that taking away blood from the arm will often be a valuable remedy in ascites, where there has been too much arterial action, or even some degree of inflammation, in the early part of the disease: but of this remedy I have not had sufficient personal experience to enable me to appreciate its value.

Inflammation of the peritoneum.—Where this disease has not been connected with any peculiarity of season, or any epidemical complaint, I have found it to be cured by bleeding and purging, like other inflammations. Upon the whole, however, I think that it has been more relieved by repeated applications of leeches, than by general bleeding. I do not wish it to be understood that general bleeding is of no advantage in peritonitis, for sometimes it produces the greatest benefit. I think, however, that in most cases, more benefit will be derived from the repeated application of leeches, according to circumstances, than from a repetition of the general bleeding. The purgative medicines which have appeared to me to be of most value, are calomel and the neutral salts.

Of some Affections of the Stomach.—There is no complaint more common in this country than an imperfect condition of the functions of the stomach. This generally shows itself by more or less of flatulence, by acidity, by a bitter taste occasionally felt in the mouth, and often by some degree of costiveness. This condition of the stomach generally arises from something wrong in the quantity or quality of the food—from anxiety of mind—and from a due degree of exercise not being regularly taken. It makes its progress very gradually, continues always for some months, and often even, more or less, for years.

The first object of attention should be to remove, as far as possible, the causes which produce it. Every kind of food should be avoided which the patients may have found, from their own experience, to have disagreed with their stomach. Most commonly, animal food that is very fat, or much salted or fried, is difficult of digestion, and should either be eaten very sparingly, or, should be altogether avoided. Young and white animal food is in general more difficult of digestion than what is brown and of middle age. The vegetables which are eaten should be very well boiled, and should be taken sparingly by such persons as are subject to flatulence or acidity. The waxy potato is almost constantly very difficult of digestion, and in general should be avoided altogether. There should never be so much food taken at a time as to give the feeling of fulness or distention in the stomach; and, except under very particular circumstances, there is no advantage in eating oftener than three or four times in twenty-four hours. The best common beverage in disordered conditions of the stomach is water, or toast and water; and three or four glasses of wine may be taken at or after dinner, according to the habits of the patient, or other circumstances. That wine is to be preferred which agrees best with the stomach, of which he is himself the most competent judge. Daily exercise is almost constantly necessary in order to preserve good digestion. Riding on horseback is upon the whole the best, for it gives a motion to the abdominal viscera which no other exercise is capable of; but walking is also very useful. A combination of the two is preferable to either; for riding on horseback chiefly exercises the limbs and the thoracic viscera. Anxiety of mind should be avoided, whenever it can fairly be done; but it is often impossible to take advantage of this remedy.

With respect to medicines, there are none for this complaint which can be called specific. The most beneficial, however, which I have known are rhubarb, and some form of bitter medicine combined with alkalies. Eight grains of rhubarb formed into pills with soap, taken every night at bed-time, and some bitter, as infusion of cascarilla, calumba, quassia, or gentian, with some grains of soda or potassa dissolved in it, taken in the morning and before dinner, will often be very useful in this kind of disordered stomach. These remedies should be continued for five or six weeks at a time, should be omitted for two or three weeks, and occasionally resumed. If the alvine evacuations should be considerably lighter in their colour, or much darker than natural, mercury, given in moderate doses, and not for so long a time as to injure the constitution, will often be of great use. The large and indiscriminate employment of mercury in complaints of the stomach has, I think, been often very hurtful. Where acidity has been particularly prevalent in the stomach, I have sometimes found it more effectually corrected by the diluted mineral acids than by alkalies. Ten or twelve drops of the diluted sulphuric or diluted nitric acid, mixed with an infusion of some bitter, and taken twice a-day, will sometimes be very beneficial in this condition of the stomach.

There is an affection of the stomach in which the digestion is very imperfect, and in which considerable quantities of a transparent viscid mucus is formed. This often produces nausea, and is occasionally brought up by vomiting. According to my experience, this condition of the stomach has been frequently little benefited by medicine; but sometimes I have found the tinctura benzöes composita of considerable use. A drachm of it may be taken, mixed with water and some mucilage of gum acacia, three times a-day.

There is another affection of the stomach, less common than the former, but far more serious,—viz. where the stomach throws up in large quantity a fluid like cocoa. A quart of this fluid will often be thrown up at a time; and this will frequently be repeated for many days together. This condition of the stomach is sometimes connected with a diseased state of the liver, but sometimes it is independent of it, there being, at least apparently, no disease in this latter organ. In several instances it has proved fatal; but in others, and especially in two cases which I recollect, the complaint subsided for several months at a time, and the persons enjoyed in the intervals tolerable health. This state continued many years, and the patients are still alive. In one case I had an opportunity of examining the condition of the stomach after death. It was very capacious, and was half-filled with this brown fluid, but did not appear to be at all diseased in its structure. The neighbouring viscera, as the liver and spleen, were (as far as I recollect) perfectly sound. The fluid would appear to be formed by a diseased secretion of the inner membrane of the stomach, without any apparent morbid structure.

This disease, according to my experience, is but very little influenced by medicine or by diet. In two or three cases, some benefit seemed to be derived from astringent medicines combined with moderate doses of opium, —as, for instance, from tincture of kino, or tincture of catechu, with a few drops of laudanum, taken three or four times a-day. The bowels should be at the same time kept free from costiveness.

In some cases the stomach will lose almost entirely the power of digestion: the patients will become pale and emaciated, and appear as if they were affected by some fatal visceral disease: at the same time no morbid structure in the region of the stomach or liver can be detected, by the most attentive examination. In some of these cases, the patients have been completely restored to health by a course of the Bath waters.

Of Inflammation of the Bowels.

Of this very formidable disease I have very little to observe. Where the symptoms had been fully formed, the greater number of cases which I have seen have terminated fatally. One case, however, in which the vomiting was of stercoraceous matter, recovered. The chief remedy in this very dangerous disease is bleeding largely, both from the system and topically by leeches. It is very desirable that the inflammation should be subdued, or at least be much lessened, before any active purgative be administered. A purgative during the violence of the inflammation will rarely produce any evacuation, and may even do some injury, by stimulating a part still highly inflamed. Fomentations have been very commonly applied to the belly, and they give some temporary relief. I am inclined to think that cold applications may be useful in assisting to subdue the inflammation; but this I have not hitherto tried. The tobacco glyster, and cold water thrown upon the lower limbs, have in some cases excited the bowels to action, when very powerful purgatives had failed.

Of Dysentery.—In this disease opiate and astringent medicines have sometimes appeared to me to be administered too early. Mild purgative medicines (of which I think castor-oil, upon the whole, the best,) should be administered till the alvine evacuations have become free from mucus and blood, and have recovered in a considerable degree the appearance of a natural fluid motion. Astringent medicines with opium, may then be directed with much advantage. As there is always an inflammatory condition of the bowels in this disease, leeches may be applied to the seat of the sigmoid flexure of the colon, and the upper extremity of the rectum, with a considerable chance of benefit.

Of some Affections of the Liver.

There may be, and often is, a deficiency in the quantity of bile mixed, with the alvine evacuations, without any disease in the structure of the liver. The fæces are more or less pale; but there is no hardness nor fulness in the region of the liver. Every thing there, upon the most attentive examination, is discovered to be soft and perfectly natural to the feeling. Mild purgative medicines, with small doses of the pilula hydrargyri, are commonly very useful in such cases. Four or five grains of the pilula hydrargyri should be given every night for some time, and the purgative every morning, or every other morning. The mercurial medicine should not be carried so far as to make any impression upon the constitution, if this can be avoided: it is only intended to stimulate the ducts of the liver. The best purgative medicine, upon the whole, is the sulphate of magnesia in moderate doses, so as to produce two or three evacuations daily. When the alvine discharges have for some little time resumed their natural colour, the pilula hydrargyri should be given up.

Sometimes the bile discharged from the liver is of a dark colour, and the motions become darker than usual. The intensity of the colour differs very much in different individuals, and occasionally it is nearly as black as ink. The liver at the same time may be, and commonly is, quite sound in its structure. The treatment should in this case be in a great measure simlar to that in the former, but a little more active. Small doses of calomel may be used instead of the pilula hydrargyri, and the purgative medicines may be a little more powerful. When the colour of the motions has for a short time (eight or ten days) become natural, the calomel may be given up; but the purgative medicines may be continued longer, at somewhat greater intervals—as, for instance, every third day. Where the motions are very green in their colour, magnesia or some alkali may be mixed with the purgatives. In the above cases the Cheltenham and Leamington waters have been often very useful: but I think that many practitioners of the present day have erred in administering mercury too long, and in too liberal doses. When mercury is carried beyond the point that is necessary, it often injures the constitution by weakening it, and by rendering the nervous system very irritable.

There is sometimes a greater fulness, and greater sense of resistance, over the whole region of the liver than natural, with more or less of tenderness upon pressure. This arises from some chronic inflammation of the substance of the liver. In such a case, the repeated application of leeches to the seat of the liver, and the occasional application of a blister, are often of the greatest use. A mild course of mercury should be recommended, so as in some measure to affect the constitution; and this should be administered both externally and internally. It should not however be carried beyond the necessity. Long and repeated salivations will seldom be required, and often have done much and permanent injury to the constitution. When the liver has become soft, has lost its tenderness, and resumed its natural size, the mercury may be given up. If the liver shall not have returned altogether to its natural state, and the constitution appears to be suffering from the course of mercury, a seaton may be inserted under the skin in the region of the liver, and the mercury may be given up or suspended. In some cases I have found a fulness of the liver, which had eluded the effect of mercury, to be removed by a seaton. The administration of purgatives is of great advantage in all such cases, and the Cheltenham waters are often highly beneficial.

Of Abcess in the Liver.—Inflammation of the liver will occasionally terminate by forming an abcess. The abcess will in time break externally, or it will communicate with the lungs, with the stomach, or with both of these vicera. When the abcess breaks externally, the part gradually heals, unless there be something very unfavourable in the constitution; and the patient recovers entirely. When the abcess communicates with the lungs, the matter is brought up by coughing, and the patient, if prudent in the management of himself, and possessed of a tolerably good constitution, will sometimes at last entirely recover. When the abscess communicates with the stomach, the matter is sometimes discharged by vomiting, and sometimes by the bowels. In this case, too, the patient will not unfrequently recover; and the same observation may be extended to an abscess of the liver which communicates both with the stomach and the lungs, although the circumstances are more unfavourable in this than in the other two cases. In these various cases little benefit is produced by medicine, but great injury may be done by imprudent or unskilful management. The bowels should be kept always free from costiveness: if there be any considerable feverishness, it may be lessened by saline draughts; or, if the constitution be weak, it may be strengthened by the prudent use of tonic medicines. The diet should be light and nourishing, and in general wine should be avoided. The exercise, if the weather be favourable, should be gentle: but it should not be taken at all if the weather be ungenial, or if it be attended with pain or much fatigue. A stimulating diet, too much or too violent exercise, and exposure to a cold atmosphere, may do much mischief, or even lead on to a fatal event.

Of Tubercles in the Liver.—Tubercles of different kinds are formed not unfrequently in the liver, at a middle or more advanced age. They are often connected with an intemperate mode of living, but they will sometimes occur in persons who have passed an uniformly temperate life. They are frequently the cause of ascites, but sometimes they do not produce this effect. No medicines, as far as I have seen, are attended with any permanent benefit in this state of disease. By temperate living, by gentle exercise, and by the bowels being kept rather open, patients will not unfrequently live for some years with such complaints; but I do not recollect any instance of a patient actually recovering from them.

Of Hydatids in the Liver.—I have known only two instances of this disease in the living body. The one was in an old lady, who had been subject from time to time, for many years, to symptoms, very much resembling those of gallstones. At length, after a more severe attack than usual, the constitution gradually sunk, and she died. Cysts containing hydatids were discovered upon examination of the body after death.

The other case was that of a young lady, who had suffered occasionally a good deal of pain in the region of the liver, and at length passed some hydatids by stool. She for the time recovered, but what became of her afterwards I have never learned. It is obvious that the formation of hydatids in the liver, even when the existence of this disease can be perfectly ascertained in the living body, can receive no essential benefit from medicine. If inflammation should take place in the progress of this disease, it may be removed or lessened by taking away blood from the arm, or topically: and if at any time violent pain should occur, it may be mitigated by opium and the warm bath. The bowels should be kept rather open; and there will always be some advantage in patients affected with this disease living temperately. Patients may live many years with this complaint; but if it be gradually making progress, even though slowly, it must, in almost every instance, have ultimately a fatal termination.

Of Gallstones.—The formation of gallstones in the ducts of the liver, or in the gall-bladder, is not a rare disease, and I have known many instances of it. The paroxysms of this complaint are generally attended with exquisite pain; but I have known a few cases where the pain has been moderate.

Some cases I have likewise known where patients have been subject to symptoms of indigestion for many months, without paleness of the stools, yellowness of the skin, or any other symptoms which denote the existence of gallstones; yet this condition of the stomach has ultimately led on to the symptoms of gallstones being formed in the most distinct manner. It is obvious that no solvent can be successfully applied to a gallstone within the living body. While the symptoms of gallstone exist, it must either be in some duct of the liver or in the cystic duct, or in the ductus communis choledochus. But a solvent introduced into the stomach cannot come in contact with a gallstone in any of these situations. As soon as a gallstone drops into the duodenum, where a solvent might reach it, all symptoms belonging to gallstones immediately cease; and for the time the patient becomes quite well. In the treatment of gallstones, therefore, the symptoms can only be mitigated by medicine. If any inflammatory symptoms have been produced, which is sometimes the case, they can be removed or lessened by general and topical bleeding. The exquisite pain which is commonly felt during a paroxysm of gallstones, can be generally mitigated by large doses of opium, by fomentations, and by the warm bath. Purgative medicines should be given, of sufficient power to counteract the effects of the opium. Mercury appears to me to have no power over a pure case of gallstones, unmixed with any fulness or hardness of the liver; and the Cheltenham or Leamington waters are of much less advantage than in the more ordinary cases, where the functions of the liver are merely deranged. No particular mode of life will protect a patient against the recurrence of gallstones; but there is always some advantage in such persons living temperately, and keeping their bowels free from costiveness.

Of some Diseases of the Pancreas.

The pancreas is, upon the whole, less liable to disease than any other important gland in the body. I do not recollect that, in private practice, I have met with one case in which there was satisfactory evidence of the pancreas being diseased; and I have only known of a solitary example of it during the thirteen years in which I was a physician of St. George's Hospital. This case was under the care of another physician,* and the pancreas was not known to be diseased till the patient's body was examined after death. The pain in the epigastric region, sickness, uneasiness or pain in the loins, which belong to inflammation and enlargement of the pancreas, belong also to other diseases, and therefore do not particularly indicate a disease in this important viscus. Were the enlargement so great that it could be ascertained by an attentive examination of the living body, no difficulty would remain in ascertaining the disease. This, however, will very seldom happen; for I have not found a single instance, in all the dead bodies which I have examined, of the pancreas being so large, that it could have been ascertained by the most careful examination in the living body. If the pancreas were to be much increased in size, and the patient much emaciated, so as to ascertain this disease while the patient was alive, it would probably be in general too late to receive any substantial benefit from medicine.

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*Dr. Heberden, Jun.

Calculi formed in the ducts of the pancreas, constitute a still rarer disease than the inflammation or enlargement of this gland. I have not myself met with any instance of it in the living body, nor do I remember to have heard any physician say that he has seen this disease. While the calculi remain within the ducts of the pancreas, it is evident that no solvent could reach them; and if they should be discharged into the duodenum, there would be a cessation of the disease for a time.

Of some Diseases of the Spleen.

The spleen is much less subject to inflammation than many other of the abdominal viscera. I do not recollect a strongly-marked instance of it in my practice; and I have never met with an abscess in the spleen in all the dead bodies which I have examined. The peritoneum is not uncommonly inflamed in that quarter, and the coat of the spleen is more or less involved in the inflammation. I am not aware that inflammation of the spleen would require a different treatment from that of other viscera.

I have met with several examples of enlargement of the spleen. The enlargement has been very different in different patients. In some the spleen has not been more than twice its natural size, and in others it has been so large as to occupy nearly all the left side of the abdomen, extending from the diaphragm to the pelvis. When the enlargement is so considerable that the lower end of the spleen can be felt under the margin of the ribs upon the left side, there can be no doubt with respect to the disease. The spleen, when enlarged, is always felt to be harder than in a natural state, but pressure upon it with the hand seldom produces pain. An enlargement of the spleen is sometimes followed by ascites; but there will frequently be no dropsy of the abdomen, even where the spleen has been for a long time much enlarged. Where enlargement of the spleen has been connected with ague, it more frequently subsides than in any other case; where the enlargement has taken place independently of this cause, it hardly ever subsides of itself, or is materially diminished by medicine. According to my experience, mercury, administered both externally and internally, produces very seldom any good effect: I have seen, I think, more advantage from a seton inserted under the skin which covers the spleen. In some cases it has appeared to be diminished in size by this remedy, and to be rendered softer: but I do not recollect a single instance, except after ague, in which it has been reduced to nearly its natural size. Temperate living, abstaining from violent exercise, and keeping the bowels open, must be to a certain degree useful in retarding the progress of the disease.

I have not met with any case of hydatids being formed in the spleen, but such a disease now and then occurs. A patient may live very long with this complaint; but it can receive no cure, nor even amendment, from medicine.

Of some Affections of the Kidneys.

The kidneys are more liable to disease than most other glands of the body, and are more frequently diseased in men than in women. This may arise from greater intemperance in the former than in the latter sex, and likewise from the more violent bodily exertions which men are often called upon to make. I have known a few instances in which the two kidneys entirely lost the action of separating urine; and this has been chiefly in persons advanced in life. The patients soon became very comatose, and died in the course of two or three days. No medicine was of the least advantage; and every case, as far as I recollect, terminated fatally. There is a great difference, in the hazard of a patient's situation, whether the kidneys separate a little urine or none at all. In the first case they generally recover, and in the second very rarely. It is curious that life should terminate so soon when the functions of the kidneys have become totally suspended. A person who receives no nourishment whatever into the stomach, or by any other means, will live much longer.

Of Abscesses in the Kidneys.—When inflammation of the kidney has not been removed by the usual means, an abscess takes place in it. The pus which is formed is sometimes of a common kind, but is often of a strumous nature. It comes away along with the urine, in greater or less quantity; and this circumstance, together with the history of the case, ascertains in the most satisfactory manner the nature of the disease. The kidney in such cases is sometimes nearly of its natural size, but is often much enlarged; and this circumstance can be ascertained by an examination in the living body. Patients will continue to live with this complaint for many months and even for several years. The formation of matter will sometimes be suspended for several months, and patients will recover in a considerable degree their general health. The disease will return, either from imprudence in diet or exercise, or without any known cause, and the patient will become as ill as ever. It very rarely happens that a patient permanently recovers from this disease, and I do not at present recollect an instance of it. Medicines, as far as my experience has reached, do not produce any great or permanent good effect. A seton inserted in the loins, or in the flank of that side where the diseased kidney is situated, is sometimes of considerable use. The uva ursi, and the tinctura benzoes composita, have sometimes been serviceable as internal medicines. The same observations may extend to cooling and mucilaginous remedies. Great quiet of body and uniform temperate living are useful in mitigating symptoms, and in retarding the progress of the disease. A patient labouring under this disease should live almost entirely upon vegetable food, and should abstain from wine and other fermented liquors.

Of Hydatids in the Kidneys.—This is a very rare disease, but I have known two or three instances of it. Its existence cannot be ascertained in the living body, unless an hydatid should occasionally be discharged along with the urine through the urethra. A patient may live very long, perhaps a good many years, with this disease, but it cannot receive any advantage from medicine.

Of Calculi in the Kidneys.—One of the most common diseases of the kidneys is the formation of calculous matter in them. This may either be in the form of sand, producing in the kidneys temporary irritation; or in the form of a calculus, which may either produce temporary irritation, or a permanent and fatal disease. When the calculus is small and of a favourable shape, it may pass by one of the ureters into the bladder, and be altogether discharged from the body by the urethra. When the bulk of the calculus is considerable, and more especially if it be of an arborescent form, it cannot pass into the bladder, but must remain in the kidney, or in the pelvis of the ureter very near the kidney, producing there more or less of irritation, frequently some degree of inflammation, and not unfrequently an abscess. The existence of a calculus in the kidneys may be guessed at, with high probability, from the symptoms; but it can only be perfectly ascertained when sand, or small fragments of calculous matter, are occasionally discharged through the urethra. In the treatment of this formidable complaint, symptoms of inflammation, when present, should always be promptly removed by general and topical bleeding, by cooling and mucilaginous medicines, and by mild purgatives. When the inflammation is removed, the proper medicines should be determined by the nature of the calculus, where this can be ascertained. If the calculus be of the common kind, (consisting chiefly of the lithic acid,) magnesia and alkaline medicines should be given, and be continued for a great length of time. If the calculus should consist of the triple phosphat, moderate doses of some of the mineral acids, properly diluted, should be given; and of these the muriatic acid is perhaps the best. I do not recollect any instance in which patients have by these medicines been permanently cured; but I have not unfrequently known the symptoms very much mitigated by them, and even for a time suspended.

Patients labouring under this complaint should live with great temperance, but should adopt chiefly a light animal diet, because if acid be formed in the primæ viæ in considerable quantity from vegetable food, the symptoms of the complaint will probably be aggravated.

Of Hemorrhage from the Kidneys.—I have known a few cases in which blood has been discharged from the kidney, and has passed out of the body, along with the urine. In most of these cases the quantity of blood has been large, amounting often to nearly a pint at a time, so that the mixture of urine with the blood hardly appeared to dilute it. The recurrence of the bleeding is commonly very frequent, and the disease will often continue, with intermissions, for several weeks. The loss of blood must arise from one or more considerable vessels being ruptured in one or both kidneys; but I believe that generally one kidney only is affected. The blood-vessels of the kidney may be so distended with blood, that one or more of them, may burst; or the sharp edge of a calculus may cut through one or more of them, and in this way occasion the hemorrhage. Whether the hemorrhage has been produced in the one way or the other, can generally be determined by an accurate attention to the history of the case.

General and topical bleeding, but more especially the latter, are sometimes of great use in mitigating the disease. Cold applications to the loins, and belly are also very serviceable. As internal medicines, nitre, the diluted sulphuric acid, and the tincture of muriated iron, have often produced great benefit. The last medicine has, I think, upon the whole, been the most useful.

The patient should be kept perfectly quiet, the chamber cool, and the diet for a time should consist entirely of vegetable substances. I do not recollect any instance in which the patient has not recovered from this complaint, when it has not been connected with an abscess, or some other formidable disease of the kidney.

Of Diabetes.—I have, in the course of my medical life, seen a good many instances of this formidable disease. Of late years a considerable proportion of such cases have got well under my care, or have had the symptoms very much mitigated. The most successful plan of treatment has been to give considerable doses of opium, combined with rhubarb or some other bitter; fifty drops of laudanum, for instance, may be given three or four times a-day; mixed with some infusion of rhubarb or infusion of calumba. The rhubarb may also be given separately, in the form of pills. Under this treatment the disease will often gradually subside, and at length cease altogether. It is, however, very apt to recur; and therefore this plan of treatment, in more moderate doses, should be continued for some months after the patient is apparently well. Bleeding from the system generally, and topical bleeding from the loins, are often useful; for the blood-vessels of the kidneys in this disease are generally more or less distended with blood. The diet should be temperate, and should consist chiefly of animal food; and the best kind of drink is, upon the whole, Bristol water.

Of a loose Tumour in the Region of the Kidney.—In four or five instances I have felt a loose tumour in the situation of one of the kidneys, which could be easily moved up and down with a slight pressure from the hand. The tumour is of considerable firmness, and has a good deal the shape and size of the kidney. It is attended with very little uneasiness to the patient, and the general health is very little, if at all, affected by it. When felt in women, it has been mistaken for an enlarged ovarium; but it has neither the shape of an enlarged ovarium, nor is it in the situation in which an enlarged ovarium is commonly found. I have not had an opportunity of examining this disease in the dead body; I am therefore not certain about its nature, but I am rather disposed to think that it is a kidney more loosely attached than usual to the subjacent and surrounding parts.

Of some diseased Affections of the Urinary Bladder.

It is not unusual for the urinary bladder to become for a certain time paralytic, and to lose its power of expelling the urine. This is more apt to occur in young women than in any other persons, and for the following reason:—The complaint is generally produced by the calls to evacuate the urine being resisted, so that the muscular coat of the bladder becomes very much stretched in consequence of the accumulation of the urine. By the stretching of the muscular coat, its power of acting is for a considerable time lost, and is only gradually recovered. Young women, from being long in a carriage or long in company, and from their natural modesty, often resist the desire to evacuate the urine for such a length of time, as to induce a paralytic state of the muscular coat of the bladder. Older women manage this function more wisely; and men are not much exposed to the causes which induce them to resist the desire of evacuating the urine. When this disease has taken place, and is not accompanied with any morbid change of structure in the bladder, the bladder gradually recovers its power by the water being regularly drawn off twice or thrice in twenty-four hours, for some weeks. Women may soon be taught to draw off the water themselves, so that they may avoid the very distressing assistance of a surgeon, as well as have an opportunity of relieving themselves whenever there is the least painful distension of the bladder. Internal medicine is of no use in this complaint: but the diet should be temperate, and drink should be taken sparingly.

The bladder will sometimes have only its sphincter muscle paralytic, while the muscular coat of the bladder shall retain its natural power. This complaint prevents the water from being properly retained; and, when there is a certain accumulation of urine in the bladder, it passes off involuntarily. This species of complaint is more common in persons advanced in life than in young persons, and more common in men than in women. The sphincter muscles generally throughout the body become more weak at an advanced period of life; and the bladder of men is more exposed through life to the causes which impair its powers than that of women. When this disease has taken place, it is seldom entirely cured. It is occasionally benefited by small blisters being applied to the perineum, or near the neck of the bladder. Tonic medicines of different kinds, and proper doses of the tinctura lyttæ, are sometimes attended with advantage.

Of a diseased Secretion from the Bladder.—The inner membrane of the bladder, more especially near its neck, has the power of secreting mucus, and is always secreting it in a small quantity, in order to protect the internal surface of the bladder against the stimulus of the urine. This secretion is sometimes very much increased in persons at a middle or advanced age, and is a good deal altered in its properties. Instead of being in a great degree transparent and void of colour, it becomes opaque and yellow, so as very much to resemble pus. It becomes what is now generally called purulent mucus, and will often be nearly equal in quantity to the urine itself. When the urine has been evacuated, and has been allowed to rest in a vessel for a little time, the purulent mucus subsides from the urine, and often adheres with considerable tenacity to the sides of the vessel. This mucus is often formed without there being any morbid structure in the bladder, or any substance contained in the bladder which produces irritation; but it almost constantly attends, more or less, the presence of a calculus there.

When this complaint is independent of a calculus, it commonly receives but little benefit from medicine. The balsam of copaiba, the uva ursi, and soda, sometimes appear to be useful, but they very seldom produce any considerable or permanent good. When the existence of a calculus in the bladder is the cause of the disease, the removal of the calculus will effectually cure it.

Of a Calculus in the Bladder.—When a calculus is in the bladder, the disease can in general be ascertained by an accurate attention to the symptoms; but it can always, or almost always, be ascertained in a satisfactory manner, by a sound or catheter being introduced into the bladder by an experienced surgeon. I have known a good many instances in which this disease has been alleviated by medicines, but none in which it has been cured. Mucilaginous substances, fomentations, opiates, magnesia, and alkaline remedies, are sometimes of considerable use in lessening the symptoms. Where the calculus has been ascertained, by portions of it, or by gravel, which may have been occasionally discharged with the urine, to consist of the triple phosphate, much advantage has sometimes been derived from taking moderate doses of muriatic acid properly diluted.

Of a Communication by Ulcer between the Bladder and the Rectum.—I have known two cases of this kind; one of which was in a man, and the other in a woman. They both lived between two and three years, but they died from the consequences of the disease. Both sometimes suffered considerable pain in the very lower part of the abdomen, but they were both often quite free from pain for many hours together. The pulse was sometimes of a natural frequency, and sometimes was accelerated. It hardly ever happened that urine escaped from the bladder into the rectum, but very often air escaped from the rectum through the urethra; and frequently more or less of fæces was discharged by the same channel. Whenever fæculent matter was discharged by the urethra, great pain was felt about the neck of the bladder. It is very obvious that medicine could be of no substantial use in those cases. Opiates, fomentations, and mild purgatives, sometimes produced an alleviation of the symptoms; but the constitution became at length very much exhausted, and the scene was then soon closed.

Of some diseased Affections of the Womb.

One of the most common diseases of the womb is prolapsus uteri. It is in very different degrees in different individuals. In some the womb is only a little lower in its situation than it ought to be, but the mouth of the womb is still considerably within the vagina. In others, the neck of the uterus shall be at the external opening of the vagina; and in a few, a considerable portion of the womb shall be without the body.

According to my experience, this disease, when in a considerable degree, is often very imperfectly relieved. When the degree of it is slight, and the vagina not very relaxed, the complaint may sometimes be removed by a horizontal posture being continued throughout the greater part of the day for several months, by the judicious use of tonic medicines, and by astringent fluids being injected into the vagina twice a-day. In a moderate degree of the prolapsus, pregnancy taking place has often proved the means of curing the disease.

When the prolapsus is in a great degree, both internal and external remedies have been generally of little use. The inconveniences, however, of the disease may in a great measure be prevented by a pessary being constantly worn in the vagina. When the pessary is well adapted to the circumstances, it does not produce pain, and in time the patient is hardly sensible of its presence. I need not say that the pessary should be removed for a few minutes every two or three days, in order that it may be cleaned and not produce irritation.

Of Polypus of the Womb.—This disease, although by no means so common as the former, is not very rare, and I have not unfrequently been consulted about it. If the symptoms be not inquired into with some attention, it may be confounded with the malignant ulcer, or what is usually called cancer of the womb; but a minute inquiry into the symptoms will enable the practitioner, in most instances, to distinguish between the two diseases. When an examination has been made per vaginam, no doubt can remain; and; therefore, before an opinion is decidedly given, an examination should always be made.

In this disease no permanent advantage is gained by medicine. The strength of the constitution may be a little kept up by tonic and astringent medicines, and the profuse discharges of mucus and blood may be moderated by the application of cold and astringent fluids: but the disease can only be removed by an operation, which consists in tying the neck of the polypus by a ligature. This can be done safely, and with great dexterity by many practitioners in midwifery. In a few days after the operation, the polypus drops off, and the patient gradually recovers her usual health. In many instances the polypus does not return; but a new polypus is occasionally formed, which in due time may be removed by a similar operation.

Of Cancer of the Womb.—This disease is not uncommon, more especially at the middle and more advanced periods of life, and I have frequently been consulted respecting it. I have never known any medicine produce the least real amendment of the disease. Opium and other sedatives will not unfrequently relieve the greater attacks of pain; and in that way will prevent the constitution from being so soon worn down by the disease. It is to be observed, however, that different women suffer naturally very different degrees of pain in this fatal disease, and that its progress is much more slow in one woman than another. The diet should always be very temperate, consisting chiefly of vegetable substances, and the patient should abstain from wine and other fermented liquors.

Of an Enlargement of the Womb.—This disease is not uncommon, although by no means so frequent as cancer of the womb. It is more apt to occur at or near the middle period of life than at any other, and may be distinguished by a moderate attention to the circumstances of the case. There are considerable mucous discharges by the vagina, as in some other diseases of the womb, and the monthly evacuations are profuse. When the disease has made some progress, a tumour of a pyramidal shape, and of considerable hardness, may be felt immediately above the pubes. The neck of the uterus is likewise found to be enlarged, by an examination per vaginam. These circumstances sufficiently characterise the disease. It generally continues for many years, and the general health is often not much affected by it. In the course of my experience, I have known three cases of this disease cured by medicine. Five or six grains of the pilula hydrargyri were directed to be given every night for many weeks; from half a pint to a pint of decoction of sarsaparilla was ordered to be drank daily; and a large mercurial plaster was applied over the tumour and the whole lower part of the abdomen. The disease in these instances gradually subsided, and at length disappeared altogether. One of these patients, who was about thirty-five years of age, afterwards became pregnant, and bore a very healthy child.

Of some diseased Affections of the Ovarium.

The most common disease of the ovarium is that of its being dropsical. It may take place at almost any period of life. It is not unusual in young women, and often occurs about the middle age. This disease may, in general, be readily distinguished from ascites, by an examination of the swelling, which is almost constantly more or less uneven upon its surface, and often more or less hard in different parts of it. Sometimes, however, in dropsy of the ovarium, when the disease is of considerable standing, the swelling is uniform, and a sense of fluctuation is felt upon striking the tumour with the hand, almost as distinctly as in ascites. Under such circumstances, the two diseases will be distinguished from each other by inquiring accurately into the history of the case.

I do not recollect any instance in which dropsy of the ovarium has been materially diminished by medicine. I have long, therefore, given up the trial of active remedies in this disease, which I have found to be ineffectual, and sometimes injurious to the constitution. I have contented myself with keeping the bowels regular, and with directing such diuretic medicines as would not impair the general health. I have not found mercury, even when continued for several months together, and having its full influence upon the constitution, produce a cure, or any material change in this disease. The disease will sometimes remain stationary for a good many years, and the general health will be very little impaired by it. In one instance, after it had existed for nearly thirty years, the disease disappeared spontaneously, and the lady, who is still alive, remained afterwards in good health. In three cases, where the women were young, and the dropsy confined to one large cyst in the ovarium, I have known them to be effectually relieved by tapping, and the disease not to return for several years. In one of these the dropsy did not return for ten years. Where the patient is young, and dropsy of the ovarium under favourable circumstances, it is always worth while to make a trial of this remedy. When the dropsy of the ovarium is composed of several cysts, the disease may be partially relieved by tapping; but it almost constantly returns, and after a certain time very rapidly, so that there is only a short interval between the operations. Still, however, some relief is afforded by each operation; and patients will be ready to undergo the operation for this relief every two or three months for several years.

A firm swelling, about the size of the fist or a large orange, is sometimes to be felt in the situation of the ovarium, either upon the right or the left side of the abdomen. It will sometimes remain stationary, will sometimes go on enlarging to a much greater size, and is not, as far as I have seen, suppressed by any remedy. This solid structure of the ovarium is found not uncommonly blended with the dropsical cysts which have been lately mentioned.

SURGERY.

Dr. Barry on the Application of Cupping-glasses to Poisoned Wounds.—The following conclusions are taken from the Report of a Committee of the Academie des Sciences, appointed to examine a Memoir by Dr. Barry on the experiments made by him on poisoned wounds:—

"1st. That the immediate application of a cupping-glass to a poisoned wound, will prevent the absorption of the poison, and avert all untoward accidents.

"2dly. That the application of a cupping-glass to a poisoned wound, even after a part of the poison has been absorbed, and has begun to produce its proper effects upon the system, will arrest the progress of these events, and prevent their recurrence so long as it is permitted to remain on the part.

"And, 3dly. That after the cupping-glass has been applied to a poisoned wound for a certain time, the poison may be removed from the surface, and all unpleasant consequences averted, by simply washing the part with a little water.

"The accuracy of these statements was fully established before the committee, by experiments performed with various poisons on dogs and rabbits, The influence, therefore, of atmospheric pressure on the process of absorption, may now be considered as incontestably proved; and the establishment of this fact may, perhaps, be regarded as a discovery, notwithstanding the ideas previously put forth by others on the subject, and the empirical practice of sucking poisoned wounds, which has been so long known to the profession."—*Anderson's Quar. Journ.*

*Wound of the Head.**—On the 15th May 1825, there was conveyed to the Hospital of the Guard, a soldier of the 2d Regiment of Infantry of this corps, named Claude L——, aged 27 years. He had received, in a duel, the same day, a cut with a foot soldier's sabre, which had divided, along with the soft parts of the right temple, a portion of the os frontis, all the anterior inferior angle of the parietal bone, and a small corresponding portion of the great wing of the sphenoid, in such a manner as to produce an osseous fragment of an oval form, about 2½ inches in length, by one in breadth. The external lamina of the dura mater had been cut, and there was an equal injury done to the two principal branches of the middle meningeal artery. In short, the patient, upon receiving the injury, had fallen down senseless.

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* Substance of Observations communicated to the Philomathic Society of Paris, relative to a wound of the Head. By Baron Larrey.

After the first assistance had been afforded him by the surgeon of the regiment, he was removed to the Hospital, where he arrived in a state of profound intoxication, and bathed in his blood. Notwithstanding, we proceeded in the dressing of his wound. After having extracted the fragment severed from the cranium, which still adhered by some fibrous portions of the temporal muscles, it was conceived, that, by means of a compression made with tents of lint, we might be enabled to stop the blood, which was supplied by arteries situated higher up. But some days after, when the suppurative process took place, the hemorrhage was renewed with redoubled violence. This incident occurred during my visit on the 19th. We lifted up with gentleness all the dressings, and directing our attention to the osseous furrows of the parietal bone, in which the two divided arteries were concealed, placed upon them a small plate of bent iron, red hot, which instantaneously stopped the hemorrhage. The wounded man did not feel the application of the heated iron, although we had introduced it about one fifth of an inch deep between the dura mater and the cranium. The dressings were then made with security.

The compression which the plugging had produced upon the brain, had thrown the patient into a state of heaviness; nevertheless he did not manifest any signs of hemiplegia. Being bled from the jugular vein, and cupping-glasses having been applied to the nape of the neck, and between the shoulders, these transient symptoms, depending on the engorgement of the cerebral vessels, were dissipated. After the cauterization was performed the patient became calm; the suppuration of the wound was quickly re-established, and all the functions were performed without any apparent obstacle. Thus, at length, every thing announced an auspicious termination, when, towards the fourteenth day of the accident, the patient suddenly manifested symptoms which indicated the greatest impediment in the circulation, such as smallness of pulse, which was felt like a thread, and presented a marked intermission at each third pulsation. The patient felt a kind of oppression in the precordial region, where we could detect with difficulty very slight pulsations of the heart. He uttered frequent sighs, and was annoyed by an uneasy, troublesome, and permanent weight in the head, which he could not support when lifted up. However, his moral and sensitive faculties were preserved entire; he answered with correctness to the questions asked him, and followed with ease the subject of a discourse. The dressings of the wound were made without pain to him.

We found out that a small abscess had been formed at the opening which had been made with the lancet in the jugular vein. We opened it, and discovered that its seat extended throughout the whole extent of this vein, which, notwithstanding, appeared to us to be obliterated. But it is probable, that, in the first course of the formation of the abscess, the purulent matter had penetrated into the tube of this vein, and had passed, along with the blood, into the right auricle of the heart. The fact is, that the signs of the circulation of the blood were progressively lessening; the pulse and the heat appeared entirely gone, although the patient still spoke and asked with anxiety for an emetic, to relieve him from the weight which unremittingly oppressed him in the region of the heart, to which, without ceasing, he applied his hand. In short, he died on the night of the 29th or 30th of May, after having had several convulsions.

Dissection.—At the opening of the body, made twenty-four hours after death, a complete rigidity existed in all the limbs; the face was the color of marble, and there was an injection of black blood into the vessels of the conjunctiva.

The cranium having been sawed off, and its left half examined, we observed, on detaching the dura mater from the internal surface of its osseous covering, that the portion of this membrane corresponding to the opening which the piece carried off by the sabre had left, was covered with fleshy excrescences, in which was buried a plate of the internal table of the parietal bone. This membrane presented elsewhere no trace of inflammation, not even at the point of cauterization made upon the cut extremities of the meningeal arteries. The sinus of the dura mater, and the vessels of the pia mater, were gorged with a black and liquid blood; yet this serous envelope, as well as the brain, showed no sign of inflammation The lateral ventricles displayed very little serum, but we discovered about three ounces of this fluid under the two lobes of the cerebellum, and in the spinal canal. The substance of the brain had acquired a little more density than we had observed in it in the healthy state.

On opening the thorax, we observed the lungs pressed down, and of a greyish color. The total mass of the heart had acquired a considerable volume, so as to fill the whole cavity of the pericardium, which was almost wholly deprived of serum. On opening the right auricle, we were astonished to find it filled and distended by a yellowish, albuminous, concretion, very solid, and fixing itself by a thick pedicle to the two venæ cavæ. There was neither blood nor coagulum in the ventricle of the same side, nor any on that of the left side; although we again met with it in the curvature of the aorta, and at the origin of the principal branches of this artery.

The viscera of the abdomen showed nothing remarkable.

After these facts, it is evident, according to M. Larrey, *1st*, That the cauterization of the meningeal arteries did not, and indeed could not, be productive of any untoward accident; and that this is the most easy, the

the most simple, and surest mode of stopping the hemorrhage of such arteries as ramify in the furrows of the interior of the cranium.

2ndly, That the death of the patient ought to be chiefly attributed to the obstacles that the black blood encountered in the passage to the pulmonary ducts, and to the successive and gradual stoppage which was put to the general circulation. It is, indeed, to this cause that we must refer the passive yet uninflammatory obstruction of the cerebral vessels, and the eventual extinction of the vital principle.

But, What have been the causes of the formation of those albuminous concretions? This soldier had certainly made great use of brandy, and when he entered the hospital he was in a state of intoxication. It is probable, then, that he must have succeeded in procuring spiritous liquors during the course of his illness.—*Edinb. Journ. of Science.*

CHEMISTRY.

On the presence of Mercury in Urine.—Dr. Cautu, of Turin, has detected the presence of mercury in the urine of persons under the action of mercury. He collected 60 pounds of urine, voided by syphilitic patients who were employing mercurial frictions. It very speedily became alkaline, and deposited an abundant sediment, which was collected on a filter. The clear liquid was subjected to various trials, but presented no trace of mercury. The precipitate, mixed with an equal weight of carbonate of potash and powdered charcoal, with sufficient water for making it into a paste, was heated gradually to redness in a glass retort, the beak of which was dipped into a recipient filled with water. At the close of the experiment, a pulverulent matter appeared at the bottom of the water, which, after being dried, yielded globules of mercury from mere pressure. The neck of the retort contained also a number of small globules.—*Ann. de Chim. et Phys.* vol. 27.

Cystic Oxide Calculus.—The occurrence of the cystic oxide calculus appears to be more common than was at first supposed. Our readers will remember, that this substance was first noticed by Dr. Wollaston, who published his description of it in the Philosophical Transactions for 1810. He had seen at that time only two instances of it; but several cases have since been met with, from which it is probable, that they will more frequently be found whenever they shall more generally be looked for.

The three cases mentioned by the late Dr. Marcet, in his Treatise on Calculi, as having fallen under his own observation, are interesting and instructive. They show that the formation of cystic oxide, contrary to the supposition from which its name was derived, may take place in the kidneys. For, in one of the cases, the descent of a stone from the kidney to the bladder was distinctly indicated by the symptoms; and, in the two others, cystic oxide calculi were actually found in the kidney after death. The formation of cystic oxide, according to Dr. Marcet, is usually connected with renal disorders; and he conceived that these calculi were peculiar to the kidney rather than to the bladder. Two of Dr. Marcet's cases occurred in brothers; whence it seems probable that the cystic oxide diathesis may be of an hereditary nature.

We have made these observations as preliminary to the history of a case, the first part of which is already before the public. We allude to the following letter from Professor Stromeyer to Mr. Noehden on the subject of cystic oxide, published in the eighth volume of the Annals of Philosophy, New Series. He states, that " he had some time ago the great satisfaction of discovering in gravel from the human body Dr. Wollaston's cystic oxide; and afterwards, in the urine of the same patient, who is afflicted with the stone, the same substance in a considerable quantity. In this urine, the uric acid was almost totally wanting, nor was the urea found in it in natural quantity. As the cystic oxide has hitherto not been found in any human concretions any where but in England, and has as yet been no where observed in the urine itself. I wish you, if you should see Dr. Wollaston, to mention this to him at the same time respectfully remembering me to him. I have no doubt this intelligence will interest him. I mean shortly to publish a brief notice upon the subject. Last year M. Lassaigne, of Paris, also found cystic oxide in a stone from the bladder of a dog."

We are happy in being able to give the following particulars relative to this case, which we state on the authority of Dr. Turner, who has lately received an account of it from Professor Stromeyer. In consequence of suffering from symptoms of stone in the bladder, the gentleman above alluded to submitted to the operation of lithotomy, and three cystic oxide calculi, were extracted. It is remarkable that a sister of this gentleman has likewise been subject to a similar complaint, having once passed a stone by the urethra, which proves, on examination, to be cystic oxide.

This is one of the most instructive instances of cystic oxide hitherto published. We here detect Nature in the act of forming the calculus; the cystic oxide is found copiously in the urine itself, it is deposited in the form of gravel, and ultimately gives rise to a regular stone. It is most probable that the formation of such calculi is always preceded by the presence of cystic oxide in the urine itself; and we should expect from this circumstance, that the deposition may take place in any part of the urinary passages. In the present case, the calculi seem to have been formed in the bladder. The tendency of this disease to attack more than one member of a family, noticed by Dr. Marcet, is also confirmed.

Is cystic oxide foreign to healthy urine, or does it exist in it naturally in small quantities? We are not aware that the urine has been examined with the view of deciding this point, or that the question itself has been distinctly stated. From the difficulty of separating animal principles from complex animal fluids, it is obvious that a substance like cystic oxide, which is held in solution by so many re-agents, may easily have been overlooked.—*Anderson's Quar. Journ.*

OBSTETRICS.

Mr. Fawkes' Case of an Osseous Tumour in the Uterus.—" A lady, 69 years of age, was attacked with symptoms of strangulated hernia, which, notwithstanding the reduction of the intestine, on the following day proved fatal, in about thirty hours. On examination after death, the usual appearances of extensive peritoneal inflammation were found, but the state of the uterus attracted more attention, as well on its own account, as because no suspicion seems to have been previously entertained of any particular disease in that organ :—

" The following description of the state of this part is taken from the report of Mr. Rose, by whom the body was examined.

" The uterus projected into the middle of the cavity of the pelvis, in a pyramidal form, and seemed at first to consist of one entire mass of bone. On taking it out of the body, however, the anterior part was found still fleshy, and on dividing this, the cavity of the uterus was also found perfect, though much compressed and reduced in extent; but behind this cavity, and imbedded in the substance of the uterus, a spherical mass of bone was found, as large as a pullet's egg. This mass consisted, as it is stated, principally of phosphate of lime, which, from the arrangement of the particles, seemed to the reporter to have been originally deposited in a tubercle, similar to that about to be described. Imbedded also in the substance of this organ, and a little below one of the Fallopian tubes, one of the hard rounded tubercles so often met with in the uterus, was also found. It was of a white appearance, as large as a hazel nut, and when cut into, exhibited the common structure of these bodies, being intersected by membranous septa. It is proper to add, that this lady had been the mother of three children, the youngest of whom, at the time of her death, was thirty-five years of age. Nor must it be omitted, that an oval pessary was found in the vagina, which, judging from its appearance, and the intelligence obtained from one of the family, had remained there, in all probability, for a number of years, entirely forgotten, as it would seem, by the patient herself, and by those around her."*Ib.*

Dr. L. Frank's Case of Rupture of the Uterus and Cæsarean Operation.—" Angelica Grossi, aged 44, a native of Parma, and the mother of five children, was taken in labour of her sixth child at the beginning of the ninth month of pregnancy, August the 9th, 1817. A midwife was called, who afforded her the necessary help; but as the patient was standing up, she was suddenly seized with vomiting and faintness, and was therefore immediately conveyed to bed by the midwife and attendants. At the instant she was laid on the bed, she felt something give way in the abdomen, and then, to use her own expression, it appeared to her as if there were two children in the womb. Under these circumstances, a surgeon was sent for, who recommended to her rest, as he conceived the sensations of the woman arose from the motions of the fœtus during the act of vomiting. But the midwife, finding that the abdomen was more and more distended, that the vomiting continued and the breathing was difficult and interrupted, sent for Dr. Joseph Rossi, professor of midwifery. Professor Rossi, on a minute examination, decided that the uterus was ruptured; and after consulting with his father Dr. Francis Rossi, and other practitioners in the town, he, in common with his colleagues, decided that the Cæsarean operation was absolutely indicated in the present case. The operation was performed two hours after the rupture of the uterus is supposed to have taken place, by Professor Cecconi, in the presence of the two Drs. Rossi, Professor Pieztti, and others. The incision was made on the left side of the abdomen just in the spot where the feet of the child could be felt. After the incision was made, the feet immediately presented themselves to view; and the living child, together with the placenta, were then removed. Forty days after the operation, the patient was perfectly restored, and able to walk out. Her menses some time after this appeared; and in the space of three years from this period, the same woman was delivered of a seven month's child, which lived fourteen days. Over the spot where the incision was made in the abdomen, a cicatrix of the size of an apple remained, which, although it could never be completely healed, caused the patient very little inconvenience."—*Ib.*

MEDICAL JURISPRUDENCE.

School for Instruction in Legal Medicine.—An interesting discussion was lately had in the Royal Academy of Medicine at Paris, on the expediency of petitioning Government to found a school for this particular purpose. Dr. Dariste of Bordeaux, appears to have proposed it to the minister of the interior, with a particular reference to the wants of the French Colonies. According to him, the crime of poisoning is very common, while there are few, if any persons of sufficient chemical knowledge, to detect the substances employed, and thus to discover and punish the guilty. Orfila, Pelletier, Caventou, and Pelletan, warmly supported the plan of Dr. D. but suggested that it should be so enlarged, as to educate persons not only for the colonies, but also for the kingdom of France itself, and who might be attached to the tribunals of justice. During the discussion, the importance of the subject appears to have enlarged the views of the members, and a still more complete and extensive institution was suggested by the committee to whom the subject had been referred. They propose the establishment of a school, where toxicology, medical jurisprudence generally, and medical police shall be taught, while the courts of justice and government are not to consult any physicians on questions relating to these branches, except such as have been thus educated.

We are happy to observe, that this important subject is attracting attention in France, for we are fully convinced that criminal justice can never be properly or uniformly administered, unless a part at least of the medical profession are more fully instructed in legal medicine.

Effect[1] of various metallic substances on animals.—Gmelin, Professor of Chemistry at Tubingen, has lately published a series of experiments made on animals, with several metals, and their compounds. The action of some of these had never previously been ascertained. We add a short abstract of the most interesting results.

Barytes. All its soluble salts are violent poisons. They act particularly on the spinal marrow, and destroy the irritability of the voluntary muscles, but not of the involuntary. A slight inflammation of the stomach is also produced. The sulphate of barytes is inert. Sulphates are the proper antidotes against the salts of Barytes.

Strontian. The Hydrochlorate, Carbonate, and Nitrate. The last of these is the most active. The Diarrhœa that it excites, in the opinion of our authors, prevents its deleterious effects. Two drachms of the hydrochlorate produced no sensible results on animals, and half an ounce was necessary to cause death.

Chrome. Chromate of Potash excites vomiting in dogs, but does not seem to be destructive to life, except in large doses. When introduced into the cellular substance, it causes great wasting, inflammation of the conjunctiva, and the excretion of a bloody viscosity from the lungs. A species of hemiplegia precedes the fatal cases.

Molydena. The molybdate of ammonia when taken into the stomach, excites vomiting and purging; introduced into the vascular system, it produces a lasting paralysis. To rabbits it was fatal; inflammation of the stomach and convulsions being the precursors.

Tungsten. A very harmless substance. The tungstates of ammonia and soda produced no effect on dogs, but in rabbits, in large doses, it excited a slight inflammation of the stomach, and by its sedative influence, paralysis and death.

Tellurium. The oxide caused vomiting in dogs.

Titanium. A drachm of the acid given a dog, with his food, produced no effect.

Osmium. The oxide of osmium acts as an active emetic; it is not however a violent poison, as rabbits, who do not vomit, survived until after repeated doses were given. On examination, the œsophagus, stomach and intestines, were found as if burnt, covered with a hard, black incrustation. Dr. Gmelin states that the oxide is reduced by organic substances.

Platina. Its salts excite very violent inflammation, vomiting and bloody discharges. When introduced into the circulation, the rectum and bladder also participate in the inflammation.

Iridium. Its insoluble salts have no effect, its soluble ones excite vomiting and purging in dogs, inflammation of the stomach and death in rabbits. When introduced into the blood, no effect is at first perceived, but at an uncertain time, death takes place suddenly, owing probably to the destruction of the instability of the heat.

Rhodium. No sensible effect when taken into the stomach.

Palladium. The hydrochlorate, when injected into the vascular system causes instant death. When taken into the stomach, it excites vomiting and purging with dogs, but rabbits sink slowly under its effects, inflammation of the stomach, passing into gangrene is found, along with inflammation of the bladder and bloody urine.

Nickel. The sulphate produces vomiting and sudden death, preceded in rabbits by convulsions: no effect from introducing it into the cellular tissue.

Cobalt. Similar to nickel, except that its introduction into the cellular tissue excites vomiting.

Uranium. No effect except in large doses, and then vomiting in dogs, and slight inflammation in rabbits.

Cerium. In large doses the hydrochlorate is fatal, by apoplexy.

Iron. Contrary to the experiments of Smith and Orfila, Professor Gmelin found that twenty grains of the sulphate, injected into the jugular vein, produced no injurious result.

Manganese. The sulphate when injected into the vascular system, acts particularly on the liver, inflames it and increases the secretion of bile.—*Bulletin des Sciences Medicales.*

Lime Water a Test for Arsenic.—The following process for the detection of arsenic in cases of poisoning, is the joint production of Rose and Berzelius:—“Cut up the coats of the stomach, and place them in the liquid, which is boiled with a few drachms of caustic potash, in order to dissolve any arsenious acid that might be contained in it. The solution obtained is filtered, heated till it boils, and during the boiling mixed with nitric acid, which is added in small portions as long as any thing separates, and till the liquid has become strongly acid, clear, and of a bright yellow colour; it is filtered while hot; afterwards nearly, not completely, saturated with carbonate of potash, and made to boil, in order to expel the carbonic acid; then it is boiled with clear lime-water as long as any precipitate is formed; the lime-water first saturates the excess of acid, and then precipitates with the arsenious acid as arsenite of lime, and with the phosphoric acid and other animal substances decomposed in the nitric acid. If, instead of saturating the acid with lime-water, you add first caustic alkali till the liquid becomes alkaline, and then add lime-water, no precipitate will be formed, because the arsenite of lime is held in solution by the alkali.

“This statement of the solubility of arsenite of lime in a solution of alkali being in contradiction to certain facts, M. Schweigger was induced to examine the circumstances more minutely, and was ultimately led to the following explanatory experiment:—Prepare an arsenical liquid, pour it into three glasses, and add to one portion an excess of caustic potash: to the second, excess of caustic soda; and to the third, excess of caustic ammonia. On adding lime-water, a deposite of arsenite of lime will be formed equally in each of the glasses. Now add to each a few drops of acid, (for instance, nitric acid,) yet so that in all the alkali shall predominate; whilst no solution of the precipitate will take place in the glasses that have the potash and soda in them, it will immediately begin in that with the ammonia; and all the arsenite of lime will be finally dissolved, although the ammonia be not saturated by the acid which has been added. Of course, the solution will take place in the three glasses when any acid is in excess; yet, on saturating the acid with alkali, the precipitate will be re-formed immediately in those glasses that contain the potash or soda, but not in that which holds the ammonia, however one may neutralize the liquid.

"By putting muriate or nitrate of ammonia into a liquid containing arsenic, and adding lime-water in any quantity, no precipitate will be formed, even though heat be applied. Thus it will be seen, that it is not the ammonia, as caustic alkali, which retains the arsenite of lime in solution, but it is the presence of a soluble salt of ammonia which prevents the formation of the deposite; and if, instead of ammonia, caustic potash or soda be used in the process described by Berzelius, then lime-water will instantly form the precipitate of arsenite of lime."—*Anderson's Quar. Journ.*

Domestic.

Account of a case of Amputation at the Shoulder Joint, in an extract of a letter from Dr. John Wagner, of Charleston, S. C. to his friend Dr. J. Kearney Rodgers of this city.

A negro man in the country was bitten by a rattle snake in the fold of his right arm; a ligature was applied around the arm, near the insertion of the deltoid, and kept on 23 hours. The whole limb was in a state of mortification when I saw it, on the 11th day, and on the 12th I removed the arm at the shoulder joint. On the 7th after the operation the ligature came away, and the patient was able to sit up. To-day, the 15th after the operation, the patient is doing well, and is able to walk about his room.

Account of a Case of injury of the Head.—By John W. Gloninger, M. D. of Lebanon, Pennsylvania.

In the afternoon of Thursday the 1st of December last, a son of Mr. John Stoever, aged ten years, received a kick from a horse above the ear, and was taken into his father's house as lifeless; but by the time the family physician, Dr. Reidenaur, arrived at his residence, a few miles from this place, he had so far recovered as to able indistinctly to articulate. He was called in the evening, and upon examination of the wound of the scalp, he found that a small portion of the cerebrum had escaped, in consequence of the cork of the shoe having penetrated through the squamous part of the temporal bone of the left side. He abstracted a considerable quantity of blood from his arm, and simply dressed the wound. In the morning following, he requested me to visit his patient with him. I complied with his desire, and upon dilating the wound we could only discover a fissure about an inch in length, and extending directly upwards from the place penetrated.

The orifice made by the cork of the shoe, in appearance exactly resembled that of a gimlet, and in size did not exceed the sixth part of an inch; but its depth was such as to have pierced through the membranes and into the substance of the brain; and during the night, there was again at least a large tea-spoonful of it discharged, which was in contact with the dressings in the morning.

As there were no symptoms whatever of compression of the brain, the boy being as rational then as he was previously to the accident, the application of the trephine was deemed both unwarrantable and unnecessary, and the only danger we immediately apprehended was inflammation of the brain and its meninges, which was obviated by rigorously pursuing the antiphlogistic treatment. In regard to the local treatment, we availed ourselves of Dr. Mott's practice as detailed in his "Memoir on the subsequent treatment of injuries of the head."*

Our little patient, to all appearances was daily improving, and great hopes were entertained of his recovery, as he was able to walk about the room in which he was confined, and as sensible as if nothing had happened to him, until the 19th day, when very suddenly he was seized with a spasmodic affection of the head and superior extremities, that assumed a tetanic character, and in seven hours thereafter he expired.

However desirable autopsical examinations are in disclosing the morbid appearances of the various parts of the body, we were nevertheless deterred from proposing one from a conviction that they had imbibed the prejudices which so generally prevail here against them. Had we even particularly desired it, we are confident it would have been peremptorily denied.

Although this case terminated unfavourably, yet as it possesses some singularity on account of the boy retaining his intellectual faculties soon after the occurrence of the accident, until the hour of his death, and, when, notwithstanding a portion of the brain had been discharged, it is supposed to be sufficiently interesting to render it not wholy unacceptable to the medical public.

QUARTERLY BIBLIOGRAPHICAL NOTICES.

1. *A Lecture delivered at the opening of the Medical Department of the Columbia College, in the District of Columbia; March* 30, 1825. By Thomas Sewall, M. D. Professor of Anatomy and Physiology. Second edition. Washington, pp. 44. 1826. (From the author.)

2. *Memoir on the Topography, Weather, and Diseases of the Bahama Islands.* By P. S. Townsend, M. D. New-York, pp. 80. 1826.

About one half of this memoir was originally published in No. XI. of this journal, and contains an account of the weather and diseases of Nassau, in the Island of New Providence, for the space of six months, commencing with March 1824. The remaining part of the memoir, which is now published for the first time, contains a similar account for the succeeding six months.

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* Transactions of the Physico-Medical Society of New-York.

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3. *An Epitome of Chymical Philosophy; being an extended syllabus of the lectures on that subject, delivered at Dartmouth College; and intended as a text book for students.* By James Freeman Dana, M. D. Concord, N. H. pp. 231, 1825. (From the author.)

In No. XVI. of this Journal, we announced the publication of the first part of this highly creditable work. We have now received it complete, and shall review it in our next.

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4. *The Characteristic of Homöopathia.* From Hahnemann's "Geist der Homöopathischen heil-lehre." By H. B. Gram, C. M. L. 8vo. New-York, pp. 24, 1825.

Dr. Gram tells us that the theory of Homöopathia is "tending not only to a reformation in theoretical and practical medicine, but threatening to invalidate many of the doctrines, which, at present, are admitted as correct, and propagated as indispensably necessary in the study and practice of medicine." "This new doctrine," he adds, "is already considerably extended in Europe, and the number of its adherents is daily increasing." We are much indebted to Dr. Gram for this information; and if it be really so, we should be happy if some competent person would give us an account of the doctrines of Homöopathia, somewhat more intelligible than that contained in this pamphlet.

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5. *A system of Anatomy for the use of Students of Medicine.* By Caspar Wistar, M. D. late Professor of Anatomy in the University of Pennsylvania. Third edition, with notes and additions. By William Edmonds Horner, M. D. Adjunct Professor of Anatomy in the University of Pennsylvania, &c. Two vols. 8vo. Philadelphia, 1825.

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6. *Observations upon the autumnal fevers of Savannah.* By W. C. Daniell, M. D. Savannah and New-York, pp. 152. 1826. See Review.

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7. *An inquiry into the nature and treatment of Diabetes, Calculus, and other affections of the urinary organs; with remarks on the importance of attending to the state of the urine in organic diseases of the kidney and bladder: and some practical rules for determining the nature of the disease, from the sensible and chemical properties of that secretion.* By William Prout, M. D. F. R. S. From the second London edition, revised and much enlarged: with notes and additions. By. S. Calhoun, M. D. &c. Philadelphia, pp. 308. 1826.

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8. *An Exposition of the natural system of the Nerves of the Human Body: with a republication of the papers delivered to the Royal Society, on the subject of the Nerves.* By Charles Bell; Professor of Anatomy and Surgery to the Royal College of Surgeons, &c. 8vo. Philadelphia, 1825. Reprinted from the English Edition.

9. *An Elementary System of Physiology.* By JOHN BOSTOCK, M. D. F. R. S. L. S. &c. &c. 8vo. Boston. 1825. Reprinted from the English Edition.

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10. *The Lectures of* SIR ASTLEY COOPER, Bart. F. R. S. Surgeon to the King, &c. &c. *on the principles and practice of Surgery, with additional notes and cases.* By FREDERICK TYRRELL, Esq. Surgeon to St. Thomas' Hospital, &c. 2 vols. in one, 8vo. Philadelphia. pp. 355. 1826. Reprinted from the English Edition.

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11. *Anniversary Address on the progress of the Natural Sciences in the United States, delivered before the Lyceum of Natural History of New-York, February* 1826. By JAMES E. DEKAY. New-York. 1826.

The subject of this address is one peculiarly appropriate for an anniversary occasion, and Dr. Dekay has done it considerable justice. He notices the progress of mineralogy, geology, botany, and zoology since the conclusion of the late war with England; taking that period as the era when the mind of our country shook off its vassalage and dependence on foreign authorities, and concludes with a sketch of such travels as have been undertaken by individuals, or under the auspices of the government, with a view of enlarging the boundaries of natural science. Most of the opinions advanced by our author appear founded in truth, and we have noticed but few, either of his commendations or censures, that we are desirous of altering.

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12. *Manual of Mineralogy and Geology: designed for the use of schools, and for persons attending lectures on these subjects, as also a convenient pocket-companion for travellers in the United States of America.* By EBENEZER EMMONS, M. D. Adopted as a text book in the Rensselaer School. 12mo. pp. 229. Albany, 1826. (From the author.)

This work has been compiled with much care from the voluminous treatises on mineralogy, of Professor Cleaveland, Mohs, Brooke, and others on the same subject, and contains also notices of recent discoveries in this interesting branch of science. An outline of geology is also given, illustrated by references to North American localities. This manual is not intended to supersede the necessity of larger and more extended works; but as a text book for students, and a pocket-companion for travellers. Dr. Emmons' reputation as a mineralogist, is a sufficient guarantee for the accuracy with which it has been executed.

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13. *Académie Royale des Sciences.* Rapport fait dans les séances des 26 Septembre, 7 et 21 Novembre 1825, sur un memoire de M. COSTA, agent pour titre; *Considérations generales sur l'epidemie qui ravagea Barcelone en* 1821, *et sur les mesures que notre gouvernement avait prises pour nous en garantir.* 4to. pp. 57. Paris. 1826.

We are indebted for a copy of this interesting report on the Barcelona fever, to our friend Dr. Dekay, of this city. We shall give some account of it in our next.

14. "*Hygiene Militaire, a l'usage des armées de terre:* Par le Chevalier J. R. L. DE KIRCKHOFF, M. D. &c. &c." Seconde edition, revue et augmentée. 8vo. Anvers, 1823. pp. 245.

A systematic work, having for its special object the preservation of the health of armies, has long been a desideratum, and is worthy of a favourable reception; since it is well established by experience, that more soldiers fall victims to disease than to arms.

The life of a soldier, independent of the dangers of battle, is one of privations and fatigues. He is exposed to the vicissitudes of seasons and of climates, and to morbific causes that frequently effect dreadful ravages on the constitutions even of the most robust. The multitude of maladies that we observe among soldiers should not astonish us, great as it is. Some are inevitable, particularly in time of war; but they are most usually the work of the men themselves. For this reason, it is a subject for serious consideration, whether governments should not make it the duty of the officers, as well as the surgeons of the army, to know intimately the great outlines of medical economy, and the truths of medical experience, which might save the troops from useless exposures and privations, often the causes of the most serious diseases and disasters of armies.

We are persuaded that many valuable lives might be yearly saved, more particularly during war, if the youth who enter our service as officers, were obliged to be examined minutely on the laws of health. It might be of immense advantage were a medical professorship attached to each military school, for the purpose of instructing officers in the general principles for the preservation of the health of the soldiery. To enlarged and philosophic minds, war is not the mere destruction of life and property, but a science; and such minds apply each species of learning in its proper sphere, and under proper circumstances. In the army almost every branch of science is occasionally in requisition, and should be ever ready for application.

The soldier enlists, as it were, into the family of the government, becomes its child, and adopts its feelings. He is willing, and frequently does sacrifice to it his health, and even his life; and it becomes the imperious duty of government to cherish the one, and to preserve the other.

The author of the work before us was for many years chief physician to the army of the Netherlands, and in such capacity, accompanied the memorable expedition to Moscow, under Napoleon Bonaparte in 1812–13. Devotedly attached to the military, he has published his "Hygiène Militaire," with a view of benefiting the soldiery, and ennobling the army. We have seen no book so full of judicious advice and sound principle, as applied to military life. It deserves a serious perusal by every officer in our army. Fortunately the genius of our country is opposed to standing armies; but, should we ever again be forced to arms, a translation of Dr. Kirckhoff's book would be highly valuable.

The author has divided his work into nine chapters, viz.:

1. Recruiting.
2. Medical police of armies.
3. Atmospheric air considered in its connexion with the health of armies.
4. Food.
5. Action and repose—sleep and watchfulness.
6. Clothing.
7. Manners and discipline.
8. Influence of moral affections.
9. Cleanliness.

We find many new and valuable observations in each of these divisions. There is a strain of pure morality pervading the work, and the author's chief aim seems to be the formation of an army of healthy, useful, and honest men, upon the well-known principle that a virtuous man makes the best soldier, or, as Zenophon says, "In battle, those who fear the gods most, fear men the least."

15. *Litterarische Annalen der gesammten Heilkunde, herausgegeben von* Dr. JUSTUS F. C. HECKER. Professor de Heilkunde an der Universitat Berlin, &c. Four numbers—for July, August, September, and October, 1825. In exchange.

16. *De corporum heterogeneorum in plantis animalibusque genesi.* Dissertatio inauguralis. Auctor JOSEPHUS HERMANNUS SCHMIDT. 4to. Berolini. pp. 48. 1825.

We are indebted to Professor Hecker of Berlin for a copy of this learned and elaborate dissertation.

17. *Compte rendu des travaux de la Societe Linneene de Paris, pendant L'annee,* 1825. 8vo. Paris. pp. 135. 1826.

The annual report of this distinguished society contains an account of the labours of its associates during the year 1825, in the various departments of natural science. Under the head of zoology we are pleased to see respectful mention made of the excellent paper of Dr. Pascalis on the small-pox, which was published in No. XIV. of this Journal.

INTELLIGENCE.

MEDICAL SOCIETY OF THE STATE OF NEW-YORK.

The prize for the best Dissertation on *Hooping Cough* was adjudged to D. L. M. PEIXOTTO, M. D., one of the Editors of this Journal.

The following Prize questions are offered by the Medical Society of the State, for the year 1827, viz.

1. The nature and proper classification of the disease commonly called *Salt Rheum*, its causes, and the best mode of treating it.
2. The history, causes, and treatment of *Scrofula*.

The dissertations are to be forwarded to the secretary of the society, (Dr. Platt Williams,) at Albany, on or before the 1st of December, 1826. They are to be accompanied with a sealed paper, containing the name of the author, and this sealed paper, as well as the dissertation, to be endorsed with the same motto, in order that the name of the successful author alone may be ascertained.

Medical commencement in the University of the State of New-York.—At the annual commencement of the College of Physicians and Surgeons of the city of New-York, held on Tuesday the 4th of April, 1826, the degree of Doctor of Medicine was conferred on the following gentlemen, to whom the Regents had granted said honour.

MASSACHUSETTS.

Reuben Knox—On Hepatitis.

CONNECTICUT.

George E. Palmer—On Neuralgia.

NEW-YORK.

Daniel C. Ambler—On the Infantile Remittent Fever.
James Andrews—On Dysentery.
William James Barry—On Hydrocele.
William H. Boyd, A. B.—On Peritoneal Inflammation.
John Binsse—On Stricture of the Urethra.
Amos H. Brown—On Chronic Inflammation.
Henry G. Dunnel—On Sympathy.
James M. Gardiner—On the Diagnosis of Abdominal diseases.
John M. Glover, A. M.—On Aneurism.
William Gregg—On Labour.
John F. Gray—On the buffy coat of the blood.
Henry E. Griffith—On the conjunctival Ophthalmia.
Lewis Hallock—On the Functions of the Skin.
Josiah D. Harris, A. M.—On Puerperal Fever.
Stephen R. Harris—On Aneurisms.
William M. Ireland—On Phlegmasia Dolens.
Benjamin F. Joslin, A. M.—On Radiant Caloric.
Benjamin C. Leveridge—On Inflammation.
Samuel Marshall—On Croup.
Matthew M'Ilwaine—On Inflammation.
Walter C. Palmer—On Epidemic Catarrh.
James C. Paul—On Animal Heat.
William Power, A. M.—On the Cow Pox.
Mark Stephenson—On the structure and functions of the Skin.
Alfred Wagstaff A. B.—On the Prostate Gland.

NEW-JERSEY.

Edward Taylor, jun.—On Lumbar Abscess.

PENNSYLVANIA.

James Fitzpatrick—On Emansio Mensium.

DISTRICT OF COLUMBIA.

Richard S. Briscoe, jun.—On Hepatitis

NORTH CAROLINA.

Griffith J. Mac Ree—On Yellow Fever.

SOUTH CAROLINA.

William R. A. Boulware—On Inflammation of the Veins.

GEORGIA.

Charles Sturges—On the Topography, Climate, and diseases of Burk County, (Georgia.)

WEST INDIES.

Isaac A. De Lima—On Fractures.

NEW-YORK HOSPITAL.

At the annual election held June 6, 1826, the following gentlemen were elected Physicians and Surgeons for the ensuing year, viz.:

Physicians.	*Surgeons.*
John Watts, jun., M. D.	Valentine Mott, M. D.
Thomas Cock. M. D.	Alexander H. Stevens, M. D.
Samuel W. Moore, M. D.	John C. Cheeseman, M. D.
Stephen D. Brown, M. D.	J. Kearny Rodgers, M. D.

Consulting Physicians.

William Hamersley, M. D.
David Hosack, M. D.

Consulting Surgeon.

Wright Post, M. D.

A CARD.

To the Editors of the New-York Medical and Physical Journal.

GENTLEMEN,

I conceive it my duty to you, as well as to myself, to correct a statement made by Dr. David L. Rogers in relation to the case of "O. Platt," published in the last number of your Journal.

He there, without even alluding to the attending surgeon, from whom he received daily instructions, touching the case, mentions it as one which "came under his care, while resident surgeon of the New-York Hospital;" thus inducing the belief that *he* treated the patient, and that the merit of the plan, if any, was *his*.

The truth is, that I prescribed daily for the man, and that Dr. Rogers, as resident physician, received directions from me respecting the treatment to be pursued in the intervals between my visits.

The case was an interesting one to me, and to its publication in a proper way I would have had no objections, but would cheerfully have given my permission. I cannot, however, allow its being thus filched from me, and palmed off on the public as the property of another.

I am, gentlemen, very respectfully yours,

J. KEARNY RODGERS.

June 22d, 1826, 14 Courtlandt-Street.

Dr. J. Kearny Rodgers will in November commence his course of Anatomical Lectures—to continue during the session of the Medical College.

July 10th, 1826. 14 Courtlandt-Street.

UNIVERSITY OF THE STATE OF NEW-YORK.

College of Physicians and Surgeons of the Western District at Fairfield, Herkimer County.—The lectures at this institution will commence on the first Tuesday in October next, and continue during the space of sixteen weeks.

Joseph White, M. D.—On Surgery.

Westel Willoughby, M. D.—On Obstetrics.

James Hadley, M. D.—On Chemistry and Materia Medica.

T. Romeyn Beck, M. D.—On the Practice of Physic and Medical Jurisprudence.

James M'Naughton, M. D.—On Anatomy and Physiology.

Fee for the whole course of lectures $54. Board may be had from $1 25 to $1 75 per week.

By Order, JAMES HADLEY, Registrar.

Errata in No. XVII.

31, line one, for *representative* read *representation.*
44, line seventh, for *mortality*, read *mourning*.
In the list of members of the State Medical Society, Dr. John H. Steel and Dr. Samuel Freeman are omitted.

UNIVERSITY OF THE STATE OF NEW-YORK.

College of Physicians and Surgeons of the city of New-York. —We are happy to have it in our power to announce that the affairs of this institution are finally adjusted. All the vacancies in the professorial chairs have been filled, and the regular courses of lectures will be delivered the ensuing winter, to commence at the usual period. The appointments recently made by the honourable the Regents of the University are the following, viz. :

JOHN WATTS, M. D., *President.*
JONAS PLATT, Esq., *Vice President.*
NICOLL H. DERING, M. D., *Registrar.*

JOHN AUGUSTINE SMITH, M. D.
Professor of Anatomy and Physiology.

ALEXANDER H. STEVENS, M. D.
Professor of Surgery.

JOSEPH M. SMITH, M. D.
Professor of the Theory and Practice of Physic and Clinical Medicine.

JOHN B. BECK, M. D.
Professor of Materia Medica and Botany.

EDWARD DELAFIELD, M. D.
Professor of Obstetrics and the Diseases of Women and Children.

JAMES FREEMAN DANA, M. D.
Professor of Chemistry.

NEW-YORK
MEDICAL AND PHYSICAL
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ART. I. *Reflections on Diseases of Irritation.* By JAMES FOUNTAIN, M. D. Fellow of the College of Physicians and Surgeons of the University of the State of New-York.

Continued from Page 164.

Nervous Headach.

IT has been observed that not only the nerves, but the brain occasionally admitted of a perverted action, submitting to the laws of nervous irritative diseases in general. This is exemplified in what is called nervous headach. Periodical and nervous headach are often used synonymously; but such looseness in medical language is very objectionable, inasmuch as it leads to the very worst treatment.

Many people, especially sanguineous and delicate females with flushed countenances, are occasionally affected in the afternoon with pain in the head, which increases until they have slept a sufficient length of time, when they awake free from distress, and in good health. This continues uninterrupted until mid-day, when the same action commences, and runs the same course. This affection, which is truly periodical, arises unquestionably from an increased action of the capillaries of the brain, and consequently would be aggravated by stimuli or irritants.

The nervous, or periodical headach of authors, however, is quite the reverse of this. It affects the feeble and nervous with emaciated habits and pale countenances. It commences early in the morning, sometimes a few 'minutes after awaking, and continues until just after mid-day, when it begins to decline, and in the evening ceases entirely. It arises, most probably, from a perturbed state of the faculties of the brain, favoured by debility both cerebral and vascular. That pure debility or atony will not produce this affection, is evident from the fact, that excessive hæmorrhages and other directly depletory means, how far soever they may be carried, will not of necessity induce the disease.

Cure. The indication of cure in nervous irritative diseases in general, that of elevating vascular action, will not always overcome the morbid process constituting this disease; although it frequently will, especially when supported by tonics, effect that end. This affection more readily admits of relief from counter-irritants, inducing a new action in the parts concerned capable of maintaining its ascendency. For this purpose no article possesses half the efficacy of *arsenic*. This herculean agent, administered in doses of one fourth or one half a grain twice in twenty four hours, with the interposition of a laxative every 4th or 5th day, will seldom, I may venture to say almost never, disappoint the practitioner.

Case. A. Smith, Esq. æt. 23, of a spare habit and nervous temperament, had been affected 18 months with the nervous headach. The pain commenced often before he awoke in the morning, and continued severe until evening, when he experienced a small respite. His appetite was bad, his pulse 130, and his spirits depressed. He had gone through the ordinary routine of medication: had been bled, blistered, and purged: had taken tonics, antispasmodics, &c. and when I first saw him, he despaired of obtaining relief from any quarter. I gave him pills containing each one quarter of a grain of arsenic, ordering one morning and evening. Finding partial relief, he unadvisedly doubled the number, and took occasionally a laxative; and at the expiration of 20 days, found himself free from his malady. This was thirteen years ago, since which he has enjoyed comparatively good health; neither dropsy nor any ill consequences resulting.

Tic Doloureux.

The pathology of no disease is perhaps more unsettled than that of tic doloureux. It would be foreign to my plan to encumber this paper with the jarring pathological views proffered by different writers. It has been considered local and general, primary and symptomatic; a disease of congestion, inflammation, and debility. Dr. Hosack observes that it is not confined to the nerves of the face, "but that it is frequently connected with the general condition of the system," and this, he continues, is not at variance with Dr. Parry's opinion of the proximate cause of this disease, which consists in "an inflammatory affection of the neurilema, or membranous envelope of the nerve affected;" and adds, that his principles "are no less in accordance with the views of this disease by Dr. Armstrong, who expressly states that "tic doloureux appears to me to be a complaint of the *brain itself*." This discrepance of opinion amongst authors is proof positive of the want of just pathological views; but still from what I have witnessed, together with the most successful plan of treatment, I cannot refrain from expressing a belief that the foundation of tic doloureux is laid in the derangement of the digestive organs, more especially of the stomach and duodenum.

Such is the construction of our animated machine, that the nerves, the digestive organs, and the blood vessels, the three grand pillars of our mysterious fabric, are reciprocally dependent on each other; therefore the functions of neither can be materially deranged without interrupting the harmony of the whole. Opposite extremes often beget the same end; so violent nervous impressions, whether exciting or depressing, impede digestion by deranging the condition of the nerves concerned in that process, and defective chylification is the direct consequence. "This, (says Dr. Johnson,) strikes at the root of health and strength, by depriving the whole system of its fundamental support, and debility, the parent of irritability, is the result." The same effects may arise from any cause whatever, which diverts either directly or indirectly the regular process of digestion; thus a foundation is laid for all that host of protean diseases which haunt those possessed of morbid sensibility. The author just alluded to observes, "that the causes of derangements in the nervous system may be branched into three classes," the whole weight of whose influence falls proximately on the digestive organs. "The lady whose case I have related," says Mr. Abernethy, "died about four years after of a disorder of the digestive organs, to which she was habitually subject." That a diseased state of the stomach should produce pain in a particular nerve of the face in a system predisposed, is no more unaccountable than that the same state of the liver should produce a pain in the shoulder, arms, fingers, &c.

The pain in tic doloureux is, primarily, purely irritative and symptomatic; but, as frequently observed, irritation finally begets inflammation, the nervous sometimes developes vascular action of the part. "In the commencement," says Dr. Armstrong, "this disease merely consists of disordered action; but when it has continued a long time, that disordered action may have produced derangement of structure." Hence it is rendered considerably certain that in tic doloureux two distinct and opposite conditions do obtain, which accounts for the contradictory mode of treatment successfully pursued by different authors.

Cure. It is an established maxim in therapia, first to remove the exciting causes when they exist and continue to operate. As all general rules have exceptions, there is often, one in this instance; for the derangement of the digestive organs, the exciting cause, cannot be removed when the inflammatory condition of the nerve has been developed, until that state is subdued, as the means calculated to overcome the former would aggravate the latter. Although there be a congestion in the brain at the origin of the nerve, according to Dr. Armstrong, or an inflammation of the neurilema, according to Dr. Parry, it is not often cognizable to any of the senses. We are, therefore, wanting in criteria whereby to judge of the stage; and the only substitute must be the general principle already suggested, viz. the duration and intensity of the irritation. If the case have been severe and of long standing, we may reasonably presume "a change of structure" has been induced, and our measures must be suited to the removal of that condition; and for this purpose Armstrong, Parry, and others, bled and purged; but, in my humble opinion, no means are so well calculated to this end as mild emetics.

The extreme remoteness of the affection from the centre of circulation, must render blood-letting either nugatory or utterly abortive, and purging promises but little more; but emetics give a general impulse to every living fibre, break old associated habits, give mobility new laws, increasing the action of the veins and lymphatics, and yet diminishing that of the arteries. They indeed seem to debilitate, but the debility they induce approaches the nature of a languor, readily admitting relief from the action of tonics to whose remediate powers they give a degree of congeniality and facility of operation otherwise unattainable. They should, therefore, not only precede a tonic course, but should be frequently interposed during its continuance.

Having cleared the way by an emetic, our next step is to restore the action of the digestive organs, and through their instrumentality, the vigour of the whole system. This object is most effectually accomplished by chalybeates, especially the carbonas ferri, employed so successfully by Drs. Hutchinson, Richmond, and Carter, as reported in the London Journals. This article, so celebrated, admits however of auxiliary means: a careful attention to diet, bitter infusions, exercise in the open air, change of scene, in short, every measure calculated to invigorate the digestive powers.

The irritation of the nerve would unquestionably admit of relief on the principle of removing irritative nervous diseases in general, were it not unsafe to induce so powerful an action in the part, added to the presence, in the system, of the exciting cause. Even though the removal of this were neglected, André, according to Dr. Good, "succeeded in removing it permanently" by the powerful action of a caustic, even after the scalpel had failed. But it is certainly more feasible to weaken or break up the morbid process in the nerve, and then to maintain a permanent natural action by tonics and chalybeates, which is the direct tendency of the means detailed.

Case. An unmarried lady, æt. 28, of a shattered habit and nervous temperament, had been affected six months with a severe tic doloureux. Viewing the case as purely nervous, I took Trotter for a guide. I prescribed an emet. of 25 grs. of ipecac. and followed it up closely by carb. ferri, and an infusion of quassia. Partial relief was obtained, but she soon relapsed. The emetic was repeated, and the same tonic course pursued, with exercise on horseback, which improved her health, and in proportion mitigated her complaint. She had many reverses, but was finally totally relieved by the alternate use of emetics and the tonic plan. Viewing the carb. ferri as the principal remedy, I gave it freely; and I may add, her health has ever since been good, for a nervous female in a state of celibacy.

Rheumatism.

Every practitioner of much experience must have witnessed cases termed rheumatic, especially of the back, shoulders, breast, and superior extremities, and even of most of the larger joints, which were uniformly unrelieved or aggravated either by a tonic or depletory course. A very striking case of the kind is mentioned by Dr. Phillip. By a little attention the subjects of these rheumatic affections will be found to labour under some hepatic disorder. Since no organic derangement is manifest in the part, these pains must be nervous irritations, and symptomatic of the internal affection. Why a diseased liver should produce a pain in the shoulder, has never been satisfactorily answered, Dr. Good's explanation notwithstanding. But such is the fact; and not in the shoulders only, but in almost every joint of the body. I know several people labouring under slight hepatic derangements, who, for years, have seldom been free from these pains wandering from one joint to another. Some enjoy a degree of health, whilst others are feverish. Like subacute hepatitis, these pseudo-rheumatic pains may exist an indefinite length of time without inducing organic derangement. But when from any cause they become aggravated, a real inflammation is developed by a law so frequently adverted to; and from an effect they become a cause. Instead of an irritative symptomatic, we have now an inflammatory affection to encounter, frequently involving in the excitement the whole vascular system, producing a symptomatic fever. The former pains are supplanted, and a new feature is given to the primary disorder of the joints; and, on the principle of counter-irritation, the original hepatic disease is sometimes wholly removed. Now it must be evident, that this complication, from beginning to end, must be totally different from ordinary rheumatism from cold. This form is quite common; and the ill success of the means ordinarily employed has contributed, not a little, to strengthen the prejudices of people against the use of medicines in that disease.

Cure. The means of cure in hepatic rheumatism may be divided into two classes—those required during the irritative, and those during the inflammatory stage. During the irritative stage, it is frequently sufficient to remove the exciting cause—the hepatic derangement. For this purpose mercurials and opening medicines are indispensable. Four or five grains of blue pill, with the same quantity of rhubarb, may be administered twice every day, and as much sulph. mag. and infusion of senna as will produce two motions, may be given every second morning. After using these resolvents for six, eight, or ten days, an infusion of quassia or colombo may be taken every morning to give tone to the stomach and bowels, and through them to the whole system; and, at the same time, to raise the action of the vessels of the painful parts, they may be embrocated with some stimulating liniment.

Dr. Phillip observes, "I have already had occasion to allude to the case of a gentleman who laboured under severe pains of the legs, which had been treated unsuccessfully for two years. A grain of blue pill, combined with stomachic and opening medicines, was given three or four times a day, and the pains with the other symptoms disappeared in a few weeks."

Deviating a little from my plan, I must beg to observe, that during the second or inflammatory stage we have a different and more difficult state to manage. We have hepatic derangement, universal debility, and local inflammation to encounter. The local inflammation having a tendency to relieve the internal affection, vigorous depletory measures cannot, according to my experience, be adopted with safety to the system. In this stage of hepatic rheumatism moderate venesection may be resorted to, and the excitement kept down by a combination of submur. hyd. one part, pulvis antimon. two parts, and nitras potass. four parts, given in doses of from eight to twelve grains every three hours, from mid-day till 9 in the evening, followed next morning by an operative dose of sulph. mag. and infusion of senna. "During the early stage of the disease," observes Dr. Moore in his Hospital Report, "the bowels are kept freely purged by giving, each night, eight or ten grains of calomel, and in the morning following, salts with senna." Dr. Moore's cases were undoubtedly hepatic rheumatism; the success of his cathartic plan cannot be accounted for on any other principle. Enveloping the whole body in flannel, and the joints doubly so, should never be neglected. It is a particular injunction in every stage of hepatic rheumatism.

Hydrocephalus Internus.

Since the medical world has been favoured with the valuable productions of Drs. Cheyne and Yeates, the following may, perhaps, be viewed in the light of an obtrusion; but the almost uniform mortality of confirmed hydrocephalus must plead my apology.

From the loose manner in which children are usually fed, and the keenness of their appetites, it is not surprising that they should eat too much, and that food of an improper quality. Hence by far the majority of the diseases of children are connected with a disordered state of their digestive apparatus, the delicacy of whose structure, at this stage of life, is extremely exquisite. The sympathy between these parts and the brain is so great and well known, that to name it is sufficient. Dr. Phillip observes, "of all the sympathetic affections of distant parts in indigestion, none are so frequent as those of the head." The delicate structure and peculiar tenderness of the encephalon in infancy is eminently favourable to the evolution of any morbid process; therefore, every derangement of the digestive organs is immediately announced, in children, by cerebral irritation or pain in the head. Although these pains are primarily nervous and symptomatic only, if they are of frequent occurrence or long duration, they will induce an inflammatory action, just sufficient to terminate in effusion, and thus constitute a real hydrocephalus internus. It matters little what the cause of the deranged state of the digestive organs is, whether vitiated bile, or any other acrid secretion, corrupt living, colluvies or worms, the effect is the same, a source of irritation to the brain, which must continue so long as the causes continue to operate. Hence it is a matter of the greatest moment to children that pains in the head, particularly if accompanied by costiveness and frequent vomiting, should be promptly attended to; for, according to the experience of Dr. Phillip, five cases of six of hydrocephalus internus arise from this source.

Cure. Hydrocephalus internus consists of three stages; the irritative, the inflammatory, and the effusive; therefore, the indications of cure must vary according to the progress of the complaint. It is to the first stage I am properly limited, but the importance of the subject will justify any deviation in form.

In every stage of the complaint, the first step to be taken is the removal of the exciting cause; and this being generally some abdominal irritation, cathartics stand foremost on the catalogue of means. In the early part of the first stage they are frequently rejected, and if not, they commonly fail to operate. No danger being apprehended, they are often neglected many hours or days; at length they are repeated in the ordinary dose, and again fail. Meanwhile the irritation progresses, and before any alarm is created, the fate of the little patient is sealed. Hence it becomes necessary, on the failure of the first cathartic, to double our diligence, and produce a decided effect by sub. mur. hyd. scammony, or oil of croton. This last article is particularly useful, according to the reports of Dr. J. S. Rogers of New-York. And Dr. Phillip observes, "if this mimic disease be kept up for a certain length of time, it will be converted into a real disease, let the cause which produced it be what it may." Excessive pain or irritation in any part will finally produce organic derangement, with all its consequences; and the action once evolved, it matters not whether it proceeds from the irritation of a disordered viscus, or a concussion of the brain itself.

After removing the exciting cause, our next step is to overcome the cerebral affection. If it have proceeded to inflammation, blood-letting holds the first rank, and next to it purging and blistering. The place usually designated for blistering is the scalp; but against this I must enter my solemn protest. Applied to this part, I have never known them productive of any benefit, but on the contrary of much injury. Nor is this surprising, when we consider the proximity of the diseased process to the scalp, which in severe cases is always hot, and actually partaking of the diseased process from within. Hence, raising an action in that part must necessarily aggravate the disease. The very reverse of this, cold applications, are evidently required. I once attended a child who was continually rolling its head on the pillow, and uttering incessant screams. Placing a hard pillow under the head, I kept it constantly wet with cold water, and in less than two hours the little patient slept calmly. And by means of cathartics and a blister to the spine, a recovery was effected. This part, the spine, is the proper place for vesication, and on it blisters may be applied with the most decided success, from the head to the sacrum. In adults for cerebral affections, in typhus with delirium, &c. I usually apply them from eighteen to twenty-four inches in length.

SECOND.—*Diseases of Organic Irritation.*

Erysipelas.

Having drawn up an account of an epidemic erysipelas for the last volume of this Journal, I should have omitted this irritative disease, did not two circumstances demand its reconsideration. The first is, sporadic cases frequently differ materially from such as are epidemic. In that which I witnessed, emetics, sudorifics, laxatives, and spirits of turpentine constituted the principal means of cure. I have since been convinced that emetics and turpentine were nearly all that were required. But in sporadic cases, venesection and other antiphlogistics are more frequently admissible, and even in some cases indispensable.

The second reason for again introducing this disease, is the very incomplete and erroneous manner in which the subject has been treated in a celebrated work in the hands of most practitioners, I allude to the Study of Medicine by Dr. Good. He considers the disease as purely asthenic. Venesection, he concludes, "has been recommended upon mistaken principles.' Like many other fire-side practitioners, he seems strangely to believe that where venesection is inadmissible, bark is indicated. "We should first cool the body, he observes, by gentle laxatives, and *instantly* have recourse to the tonic plan." On this short sentence turns his whole scheme of treatment, and yet it is so vague as to justify any blunder either in the cooling or tonic plans. In adynamic fevers, laxatives do not always cool; the patient then may be purged beyond the hope of recovery, or *instantly* stimulated into a condition equally deplorable.

The fact is, there are three distinct grades of this disease, requiring corresponding modifications of treatment. The first grade is that attended by an exalted; the second, a medium; and the third, a diminished vitality. As a general rule it may be observed, that the first is concomitant on youth, the second on middle age, and the third on advanced life, corresponding to Dr. Cooper's "acute, œdematous, and gangrenous varieties."

Cure. It must be evident that these grades require different modifications of treatment. I shall therefore consider them separately in the order in which they stand.

First grade, or acute of Dr. Cooper. This grade occurring in youth, and in the sanguineous who are young, is characterised by a brighter redness, together with a more elevated vascular action. A moderate venesection, an emetic, a laxative, and the local application of lead water, are generally sufficient to reduce the excess of action; when the natural effort of the system will soon subdue or regulate the irritative movement.

Second grade. This variety constituted the epidemic alluded to, and is that of most frequent occurrence. It is observed in the middle aged and in the choleric. It seldom or never except in sporadic cases, requires venesection; but to break up the morbid concatenation, an emetic is indispensable. This seldom fails of producing a remission of the erysipelatous action, and to secure the advantage thus obtained, some sudorific should follow immediately, and a uniform sweat be kept up eighteen or twenty-four hours. If the tongue and skin be moist, spirits of turpentine may be administered in doses of 20 or 30 drops, every one, two, or three hours, as the urgency may be. Bark in this variety is generally injurious, producing a dry tongue and skin, heat, thirst, &c. when the turpentine will not.

Note. Since the above was written, the following case has occurred in my practice. J. Fox, æt. 47, of a full and remarkable corpulent habit, was affected with universal anasarca; his feet and legs were enormously swelled, as much so as the skin would admit. They were covered by vesicles of various sizes, with an erysipelatous redness, accompanied by a burning, smarting, and itching sensation. As the vesicles ruptured, they left purple, livid denudations, from which the anasarcous fluid was continually oozing in large quantity. Besides his internal remedies, I applied a saturnine wash at first, and then a similar liniment. Three days after, finding no amendment, I tried the turpentine liniment. Forty-eight hours after the first application, the redness had mostly disappeared, and the vesicles and denuded surfaces became covered by thick brown scabs, and ceased discharging. In four days these peeled off, leaving the skin smooth and healthy.

Erythema a veneno.

To city practitioners the erythema, arising from the application of vegetable poisons, presents no inducements for investigation; but to country physicians, though a trivial disease in general, it is often more perplexing than the most formidable inflammation. Indeed, a practitioner's character is not unfrequently rated by his management of some such inconsiderable disease, which, perhaps, scarcely ever occupied his attention.

The most common poisons are the three species of the *Rhus*, the R. toxicodendron, R. vernix, and R. radicans.—

Many people are so susceptible to their action, as to be affected merely by sitting by a fire in which they are burning; or by the smoke emanating from their combustion. The leading symptoms are, diffused redness and swelling, intolerable itching and burning, succeeded by vesication, terminating occasionally in mortification and death. Sometimes the whole system is sympathetically affected, manifested by a quick pulse, white or yellow tongue, with a copious secretion of bile, nausea, and vomiting. The affection being purely erysipelatous or irritative, never terminates in suppuration.

Cure. Whoever undertakes to manage this disease, either by stimulants or sedatives exclusively, will occasionally be compelled to regret his want of discrimination. "Cooling laxatives and saturnine lotions," are the remedies of authors, and they sometimes succeed, but more frequently they fail, and the management is surrendered to the nurses. The disease admits of the same division into grades as erysipelas, according to the age, temperament, habits, &c. of the subject; and requires the same varied treatment. Smart purging should be sedulously avoided. I once visited a lady whose erythema had disappeared under the joint operation of a cathartic and lead-water; but she was harassed by an incessant nausea and vomiting; with great prostration of strength, quick pulse, interrupted respiration, and cold extremities. A table spoonful of camphorated spirits every half hour, in an infusion of rad. serpentaria, soon brought out an erythema, when every other symptom vanished. Mild emetics, laxatives, and camphorated sudorifics will soon break up the perturbed action, after which the turpentine liniment will almost infallibly establish a new irritation in the part, and thus overcome the morbid process.

CASE. A lad, æt. 13, had been poisoned five days: his face was tumid, red, and blistered; the blisters on his forehead were livid and nearly black, with fiery margins and great heat. No other preparatory treatment being necessary, the turpentine liniment was applied immediately, and in twelve hours the affection was completely subdued, the scabs only remaining; these peeled off in a few days, leaving the skin smooth and healthy.

Purpura Urticans.

This disease, though comparatively unimportant, is much less so than the last. The affection has no vernacular appellation; and as practitioners trouble themselves very little about either its name or nature, it is allowed to pass unobserved; and the patient is doomed to linger away restless nights and weary days, until relieved by chance, or the unassisted efforts of the system. Though seldom noticed, it is a disease of frequent occurrence, at least in my practice, inasmuch as two or three cases occur every year.

Notwithstanding this affection is not classed with erysipelas by nosologists, yet from the circumstance of its being irremediable, either by stimulation or depletion, together with the nature of the plan of treatment I have found most successful, I am induced to believe the morbid process is the true "erysipelatous inflammation" of Hunter, or real organic irritative action. Corroborative of this opinion, I would beg to observe, that Plumbe, a late celebrated dermologist, has located the affection in his second section on "diseases dependent on debilitated and *deranged* states of the system."

Symptoms. It usually affects one or both legs, beginning just above the ankles with small, red, rounded elevations of the skin, which soon subside to the natural level, leaving purple spots of irregular diffusion. In the morning they are livid and flat; but in the afternoon they are somewhat elevated and extremely sore; and the whole leg becomes somewhat tumid, painful, and of a venous red hue. The system is sometimes affected with feverish symptoms, lassitude, loss of appetite, and these are frequently considerable. "The duration of the complaint," observes Willan, "is from three to five weeks;" and I may venture to say, as many days are quite sufficient for its removal.

Cure. This has formerly been with me one of the most vexatious little complaints with which I had to contend. I bled, purged, used saturnine lotions, stimulated and used spiritous washes, but still the disease yielded only to time and patience. At length, a neighbouring quack informed a female patient of mine, that he could cure her in twelve hours. She consented, and he fulfilled his promise. He fomented her legs an hour or more with a strong decoction of the *polygonum persicaria*, vulgarly called arse-smart, and bound a large quantity on the affected parts. On removing it, twelve hours after, not a vestige of the complaint was to be seen. It was however only a lucky hit; for she had taken an emetic and sudorific draught, which so enfeebled the morbid process, that the acrimony of the plant acted as a powerful counter-irritant, and by instituting a new action in the part, overcame her complaint. Since that time I have uniformly succeeded by an emetic or two and a sudorific, following them immediately by the application of the turpentine liniment.

Intermittent Fever.

Notwithstanding the pathology of intermittent fever continues to be enveloped in mystery, its treatment is presumed to be so universally established, that any attempt at improvement will, perhaps, be deemed wholly superfluous, and consequently unfavourably received.

That this disease is of miasmatic origin has long been a settled point, but the composition of these malaria is yet amongst the *arcana* of nature. Various conjectures respecting their properties have been proffered by different authors, but they are all alike unworthy our confidence.

The miasmata producing intermittent fever are generally admitted to enter the circulation; but through what channel they are conveyed, is yet a subject of discrepance. The *primæ viæ*, the skin, the lungs, and even the olfactory nerves, have been severally accused of transmitting the matter into the system. But when we reflect on the continual ingress and egress of the air, loaded with morbific materials in naked contact with the saliva; and when we reflect also on the fact that miasmata have a great attraction for moisture, we may reasonably conclude that the morbific principle cannot fail to unite with the saliva, and be conveyed with that fluid into the stomach. From the enormous quantity of saliva poured out at every meal, it is evident that it was not destined to assist mastication only, but to serve some important purpose in the formation of the chyle. At any rate, it must enter into the composition of that fluid, and carry with it any morbific matter with which it happens to be intimately blended. The matter of miasms incorporated with the chyle would, in that case, completely elude the elective power of the lacteals, did they possess any such attribute, and enter the general circulation.—It has been recently contended that the lacteals absorb nutritious matter only, whilst the veins of the primæ viæ absorb heterogeneous and foreign substances. These unassimilated materials are carried by the portal blood to the liver, where a further assimilation and elimination is effected by that organ. This accounts readily for disorders of the biliary system, so generally observed amongst the inhabitants of fenny districts, and in those in whom agues have never been evolved. Being constantly imbued in miasms, a surplus remains in the stomach, which is taken up by the veins, and passes directly to the liver, producing the derangement noticed. Having introduced the deleterious principle into the circulation, an inquiry very naturally arises, why is not the disease immediately developed? We know an indefinite length of time intervenes between the introduction of the cause and the evolution of the disease. In the interim, what becomes of the poison? It has been said it circulates with the blood, and acts as a *ferment* until the whole mass has been assimilated. From this view of the subject I must beg to dissent. Such a process appears to me incompatible with the healthy vital action, for in that case assimilation must begin and continue in health. Great and important changes undoubtedly take place in the fluids, but they are primarily the effect of vascular action, and subsequently only the cause of various modifications of disease.—Moreover, the seeds of intermittent fever may remain weeks and even months in the system, without inducing disease. In these instances the poison could not have circulated with the fluids all this time; at any rate if it did, the mass could not have been materially changed, for such a state would have been incompatible with the good health which, in the mean time, has been enjoyed.

From these circumstances I am induced to believe that miasmatic materials do not continue in the circulating mass any great length of time; but that they are so intimately incorporated with the chyle, as to pass on with that fluid to its ultimate destination, even into the very substance of the medullary tissue itself. Here it may remain quiescent until a sufficiency accumulates to make the morbid impression, which will be sooner or later, or not at all, as the system may be more or less, or not at all predisposed. The vessels of the medullary texture are so extremely remote from the centre of the circulating system, that a considerable length of time must elapse before a particle of chyle from the duodenum can reach these extreme points, where deposition is effected; so that though a person visit a miasmatic district a few hours only, the disease may require several hours for its development. Professor Meyer observes, that foreign substances either fail altogether, or insinuate themselves more slowly into the latter organs, (nerves, spinal cord, &c.) If then the miasms mix with the saliva, are intimately blended with the chyle, pass the lacteals into the circulation, as we know other poisons do; if also, it requires several days for a globule of chyle to reach its ultimate destination in the medullary matter, we may with considerable probability presume it carries and deposits with it those miasmatic materials in question. And this opinion is rendered still more probable by the fact, that it is in this texture sensibility resides, and on it all impressions are made.

From the foregoing view of the subject it might be inferred, *a priori*, that every person living in a miasmatic district would be affected with intermittent fever. For a very good reason however this is not the case, because they are not all susceptible to the action of the miasm. The next question which presents itself is, in what does this susceptibility consist; which leads me to divide the remote causes into predisponent, or those inducing susceptibility to the action of morbific agents; and exciting, or those calling the disease into action.

Exciting causes. These are now so universally acknowledged to be owing to the peculiar gaseous emanations resulting from the decompositions in and about marshes, that any attempt to prove it would be superfluous. It ought to be kept steadily in mind, that to call the disease into action, or simply to excite it.

differs from allowing it to be called into action, or excited, as much as doing an act does from suffering it to be done. Other causes are set down by some writers; but their proper place it will be presently shown is amongst the predisponents only.

Predisponent causes. Predisposition is certainly the most important part of the subject, not excepting even the treatment; for on a correct knowledge of this, prophylactics wholly depend; and consequently the health and happiness of those inhabiting fenny districts turn on this grand pivot.

1st. It is a pretty uniform law of the animal economy, that the suseptibility to the action of almost all agents is diminished by their constant application or regular repetition; and this is particularly true of the poisons, as is daily evinced by those who are in the habit of using them, as tobacco, opium, alcohol, &c. In like manner, those who inhale mephitic gases have the sensibility to their action diminished: hence such persons are said to be acclimated, but more properly habituated. Those therefore unaccustomed to miasms, from their keen sensibility are peculiarly predisposed.

2nd. One of the most important properties of life is its tendency to preserve the body it pervades from the influence of chemical affinities, and the action of deleterious agents generally; therefore, during life the stomach resists the action of the gastric juice, but the moment the vital spark is extinct, it is decomposed by that fluid. In the healthy state of the system so vigorous is the vital principle, that even mercury is unable to make any impression until its energy is moderated by v. s. purgatives, or some depressing measure, when a mercurial action is immediately evolved. The same resistance is opposed to the action of poisons, as in those in whom the seeds of intermittent fevers lie dormant an unusual length of time. It therefore follows that whatever disturbs or interrupts by debilitating, clogging, or in any way deranging the regular performance of any important function of the body, enfeebles vitality and renders it unable to maintain its predominance of healthy action or resistance. A morbid movement is immediately evolved by the exciting cause: hence plethora, abdominal irritations, every kind of excess either in eating, drinking, exercise, whether mental, or corporeal inanition, despondency, grief, fear, &c. are all predisponent causes, deranging or incapacitating the vital principle. A host of other predisponent causes might be enumerated, such as carious teeth, cold bath, disgusting objects, a peach pit in the stomach, &c. &c. as set down by writers; but they all operate on the same principle, disturbing the harmony of the functions, and thereby enfeebling the vital resistance as before stated.

Whether the body be thus rendered susceptible to the action of the morbific agent, antecedently or subsequently to the introduction of the exciting cause, the modus operandi in both cases is ultimately precisely the same. In both cases the predisponent causes prepare the system, while the exciting call the disease into existence, giving character to the whole morbid process.

From the foregoing premises it is not inferable that predisposition is always necessary to the production of the disease. So great a quantity of miasm may be introduced, or its quality may be of so active a nature, as to overcome the most healthy movement, and force the disease into existence.

The propriety of the foregoing division of the remote causes into predisponent and exciting, is questioned by Dr. Johnson. " The predisponent," he observes, " however, often become the exciting, and the exciting the predisponent causes, as the following example will illustrate. Two labourers set out from London, in summer or autumn, to work in the fens of Lincolnshire. The one is a sober man and the other a drunkard. The latter is attacked with intermittent fever, while the former, though equally exposed, escapes. Here inebriety is evidently the predisposing and marsh miasma the exciting cause. But the sober man having returned to London in the winter, commits a debauch, and immediately afterwards he is seized with the ague. Here, on the other hand the latent miasm becomes the predisposing and drunkenness the exciting cause of the fever."—The last conclusion appears indeed specious, but is far from being just. To elucidate the subject, I must beg to avail myself of the assistance of analogy, and borrow an example from Dr. Paris.—" A patient had been taken mercurial medicines, and using frictions for a considerable period without any apparent effect: under these circumstances he was abruptly told, he would fall a victim to his disease; the unhappy man experienced an unusual shock at this opinion, and in a few hours became violently salivated." I would here simply ask, was the "unusual shock" the exciting cause of the mercurial action? Is it not certain that the shock overcame the force of the vital principle, as v. s. and purgatives do, and thus enabled the mercury to produce its peculiar effect? So in Dr. Johnson's example. The labourer's drunken fit in London unhinged the vital powers *en masse*, and the miasm immediately excited its peculiar effect, the ague.

To conclude, two states of the system separately oppose the evolution of the disease—habit with its impaired, and vigour with its obtuse sensibility. Their opposites constitute predisposition.

Etiological Remarks. That intermittent and remittent fevers arise from different degrees of the same cause, is an etiological axiom so universally admitted, that to question its validity may be deemed a kind of medical heresy. With all deference due to authority, however, I must beg to dissent from so sweeping a conclusion. Miasms are the product of decomposition of certain substances, under peculiar circumstances, and the recomposition of others; that is, agents synthetically and analytically produced according to the play of affinities amongst the elements of miasmatic materials. In the present advanced state of chemistry it is unnecessary to observe that a slight variation in the synthesis of bodies will produce substances widely dissimilar, or even opposite, both in a physical and operative point of view. Oxygen, hydrogen, carbon, and nitrogen variously combined, constitute all our alimentary substances, how diversified soever their qualities may seem. These very elements, also, enter into the composition of the most active poisons, and by a slight variation in their proportions, produce agents the most destructive to life. The same may be said of gaseous substances: in different proportions of the same elements they support life, are agreeably exhilarating, powerfully depressing, or deadly poisonous. No one, in his right mind, would pretend to say that these agents were the same, differing only in degree.

Dr. Johnson, in his Medico-Chirurgical Review, observes, "The fact is, that every medicine has a peculiar or specific effect on the animal economy;" then why not morbific agents, which all medicines occasionally are? Dr. Smith, in his Etiological System, also justly observes, "The nature and character of diseases are, for the most part, determined by the remote causes which produce them." One agent will, therefore, produce a peculiar movement constituting an intermittent, another a remittent, a third, combined perhaps with some marine principle, a yellow fever, &c. &c.

That intermittent and remittent fevers are the effect of a different cause, which is peculiar or specific according to the circumstances under which it is produced, is fairly inferable from the following facts. By specific, I do not mean a disease invariably the same under all circumstances, running a determinate course, as the small-pox and measles; but merely an effect corresponding to the nature of the cause, and the susceptibilities and other conditions of the system; and not necessarily incapable of being arrested at any time, as a certain Mons. Bailly has lately proclaimed. The facts I allude to are,

1st. Whether miasmata produce intermittent and remittent fever by assimilation, accumulation, or by any progressive process whatever, there must be an intermediate point between the introduction of the poison and the evolution of a remittent fever, when an intermittent would be inevitably produced, if it arise from an inferior grade of the same cause; consequently, remittents must always begin with intermittents, for a lower grade of concentration, or whatever it be, must of necessity precede a higher.

2nd. They are seldom epidemic to any great extent at the same time; while one is raging, the other appears only in solitary cases, or perhaps not at all. Some seasons I have had an hundred intermittents, and not more than half a dozen remittents, and *vice versa*. Even when they do occur simultaneously, it proves nothing, for the causes of both may exist in the system at the same time; and when the susceptibility to the action of one is worn out, it may still be susceptible to the action of the other.

3d. As remittents seldom begin, so they seldom terminate in intermittents, not more than once, I may venture to say, in fifty times. I am aware that authors direct us to convert remittents into intermittents, and then give the bark. It is easier in this, as in many other cases, to practise physic successfully at the desk than at the bed-side. I once gave a young lady thirteen emetics in as many days, yet the fever maintained its remittent type unto the end. This practice will succeed when intermittents have put on the remittent form; they are then readily brought back by an emetic and cathartic.

4th. Remittents are often as mild and tractable as the most ordinary intermittents. It was a remark of Sydenham, I think, that epidemics were most severe on their first appearance, and grew milder towards their termination. This is also the case with epidemic remittents, yet they do not decline into intermittents as they descend in grade. I have repeatedly seen them so mild that a single emetic, followed by a cathartic, would immediately arrest their progress.

Pathology. If the circumstance of being irremediable, either by stimulation or depletion characterizes diseases of irritation, intermittent fever must surely belong to that class. That it is often dependent on debility for its evolution is granted; but that it is always so, is far from being true. The subjects of intermittent fever usually enjoy good health during their apyrexial period. Moreover, bark and other tonics as they usually are, or ought to be given, do not remove it curatively by virtue of their tonic power, by *advancing tonicity*, as will subsequently be seen. Fordyce observes, "The bark of the cinchona, exhibited but half an hour before the beginning of a paroxysm of a tertian intermittent, often makes a sufficient impression to prevent the paroxysm from taking place." A fit of passion, or any sudden and smart impression a few minutes before the attack of the ague will, in like manner, prevent its recurrence. It would be almost insulting to common sense to state that tonicity could not be advanced in such a trivial space of time. In fact, the disease when once formed, is, as Dr. Parr observes, "a creature of habit;" and may readily continue independently of the causes which first gave rise to the morbid process; therefore, intermittent fever is, fundamentally, mostly a nervous affection.

Symptomatology. The first manifestations of intermittent fever are unquestionably the effect of agents acting on the living fibre, or nervous tissue. The debility and severe pains are referable to that texture only, as are also the chills; for animal heat is now viewed more in the light of a nervous than a chemical phenomenon. The secretory and all other functions depending on nervous influence are, for the same reason, interrupted.

That the cold stage is the cause of the hot, is a pathological axiom as true as it is general; but the manner in which the former induces the latter, is still amongst the mysteries of the nervous system. According to the laws of nervous irritation, so often adverted to, the action which succeeds to the cold stage, or stage of nervous irritation, should be inflammatory; and this would probably be the case with the hot stage, were it not for the presence, in the system, of the miasmatic material, which shapes the character of the vascular action after its own peculiar manner; and a movement, exalted, but still irritative or altered, is the result of such a modification.

The excessive pains suffered during the cold stage, are, according to general principles, greatly relieved or materially modified by the vascular action which characterizes the hot stage, or that of organic irritation. Still, in this stage, much anguish is suffered, but it is the effect of fulness and excessive commotion of the arteries; and is quite a different sensation from those attending the cold fit.

The general disturbance is most probably relieved by the sweating process which marks the third, or sweating stage; although it is quite possible that the vascular action may subside, and the sweating process ensue as the effect of such cessation.

As for the periodicity of the paroxysms, those who pretend to explain the phenomenon disclose nothing more than their inadequacy to the attempt.

Treatment. The treatment of intermittent fevers embraces four sets of measures : the preparatory, the palliative, the curative, and the preventive. It is not meant that each set is called for in every case ; the palliative is seldom required, and the preparatory less frequently still where people are in the habit of seeking timely assistance. I shall consider them in the order in which they are enumerated, without any ceremony about the arrangement.

1st *Preparatory.* Besides the injurious effects of the sudden depression and elevation of the nervous power, the violent commotion of the vascular system has a direct tendency to derange the structure of complicated parts, such as the glands generally, particularly that complex one, the liver. Hence, in cases of long standing, it is not uncommon to find this viscus disordered, and in such also the secretory functions generally are perverted. These act as concurrent causes, by impeding healthy movement, and demand our first attention ; for, without their removal, our cures will be imperfect, and relapses certain. Such a condition may be removed by calomel administered in small doses two or three times every afternoon, and worked off next morning by sulph. magnes. and infus. senna. This course may be persisted in three or four days. Under this treatment alone, a cure is sometimes unexpectedly effected by the natural efforts of an elastic constitution. In some old cases, however, these derangements have not been induced. The liver has been able to free itself, and a copious secretion of bile has been the result. This vitiated bile regurgitating into the stomach, and entering the general circulation, clogs the whole system. It is quite unnecessary to state that under such circumstances we should premise an emetic and cathartic. It is often surprising how suddenly such cases, which before resisted the use of all remediate means, yield to very common measures after such preparatory treatment. These states being consequent to the repetition of the paroxysms, exist only in cases of considerable length of standing ; consequently this preparatory treatment is seldom required.

2nd *Palliative.* By palliative treatment is meant that required during the paroxysm. This again may be divided into that to be pursued during the cold, the hot, and the sweating stages.

Cold stage. In this stage the indication is to allay nervous irritation, and promote vascular action. For this purpose anodynes, diffusible stimuli, and warm bathing, general or local, may be used with the most happy effect. Tinct. opii 120 gtt. with ether sulph. 60 do. administered in a pint of some warm vegetable infusion, accompanied by warm pediluvium and plentiful bedding, will soon arrest the cold fit, and induce a copious flow of perspiration.

Hot stage. During this stage the warm bathings and warm infusions are inadmissible. Our object is still to allay irritation, but at the same time to reduce vascular action. When the anxiety, pain, and restlessness are great, and the patient plethoric, blood may be drawn, and immediately after an opiate of tinct. opii 120 gtt. with twice the quantity of spts. nit. dulcis in a tumbler of cold water, may be administered at a draught. I have frequently seen such a dose act like a charm, relieving every symptom in a few minutes. I am aware that the administration of opium in the hot stage is condemned by some eminent writers. But Drs. Cullen and Lind were advocates for the practice; and I must add, that what I have uniformly seen, that I must be permitted to believe. Exhibited as it frequently is in half and quarter doses, it is just calculated to aggravate; but let all intended to be given be administered at once, and the result will justify the practice.

Sweating stage. During this stage little more is required than to promote perspiration when it appears to have a tendency to abate before relief is obtained. If it fail from debility in the patient, as in some old people, hot vegetable infusion with camphorated spts. or paregoric, may be advantageously administered. If on the contrary it fails from excess of action, tinct. opii and cold water will seldom fail to afford relief.

3d. *Curative.* Here it will unquestionably be said that I have undertaken a useless task. We have our eupatorium, salix, cornus, quinine, arsenic, prussiate of iron, &c. All this is true, yet still something may be done by way of improvement. We know that in the most skilful hands, these frequently fail, after being administered weeks in succession.

For reasons already stated, I have considered intermittent ſever as consisting of an action neither sthenic nor asthenic, but irritative perverted, or a movement peculiar to itself, yet nearly allied to many others. This movement, commencing in the nervous tissue, finally involves also the moving fibre, hence it may be called an *organic irritative disease*. It must be quite obvious that to elevate or depress this movement, would change its force only; the form would remain the same. It therefore becomes necessary to induce a different movement, and one that shall supplant wholly the perturbed action. The natural action is indeed a different one from the diseased; therefore to raise and maintain a predominance of this, will frequently overcome the disease; and this is just the course nature and nature's physicians pursue to remove the disease. I have known them however more than once to spend six months in the attempt, and fail at last. In this manner the simple tonics often succeed in assisting nature. This plan is certainly not curative, but adjuvant only. To remove the disease by instituting a new action, on the contrary, is truly curative. It is indeed done during the apyrexia, and may therefore be said perhaps to be preventive only. This, however, is not doing the plan justice. It is adopted during the apyrexia, not so much because it is impossible, as it is impracticable, to induce a more powerful action during the paroxysm. The action we substitute is purely artificial, and one which we may with propriety call our own.

To cure an intermittent fever on this principle of counter-irritation, it is not necessary to begin a week or two in advance. A few hours are quite sufficient for the purpose. Habit weakens the effect, of most agents. To begin, therefore, with small doses, and to increase gradually, would produce a small effect, though the dose were finally augmented to a great extent; for a habit would be created about as fast as the dose would be increased, and the patient would be thus for ever kept in *statu quo*. For this reason bark so often fails, while quinine, of so much more concentrated force, succeeds. Dr. Wilson could not see why some simple tonic of inferior grade should succeed after the cinchona failed. But the susceptibility to the action of the bark being worn out, the system was yet alive to that of the simple tonic.

From the foregoing premises it follows, that to cure an intermittent fever by instituting a new action, it should be created as expeditiously as is consistent with safety ; also, that it is required to be vigorous only at the instant the paroxysm would be evolved. For this purpose two articles only are worthy our confidence ; and these are the cinchona or its salt, the sulph. quinine, and arsenic.

Bark. Whoever undertakes to cure an intermittent fever by this article, beginning with a small dose and gradually augmenting it, will find his specific fail in, at least, five out of eight cases. To make a thorough impression, it requires to be administered in as large doses as the stomach can bear. Like all other medicines given to cure an ague, it should be administered during one apyrexia and *one only.* Dr. Fordyce gave enough in half an hour to prevent a recurrence of the paroxysm, in which case it must act, as Burns says it does, " as an irritant ?" If it fail a second and third time, it must be relinquished, and some other article substituted.

Sulph. Quinin. This new and popular salt promises to supplant every other article in the treatment of intermittent fever. It requires to be administered on the same principle with other irritants, that is, the whole in one apyrexia. Four grains will sometimes succeed, but ten being equivalent to one ounce of bark, is not too much, given in divided doses. Deprived of all cortical, ligneous, and other inert and cumbrous matter, it is peculiarly adapted to delicate stomachs.

Arsenic. This is almost the only article I ever employ for the cure of intermittent fever. I have administered the bark, quinine, and prussiate of iron. But arsenic is certainly the most prompt, efficacious, convenient, and cheap medicine with which I am acquainted. Properly managed, it is perfectly safe for old and young, invalids, and pregnant women ; as well as for the phthisical. The swellings so much feared, are the effects of mismanagement, or of the disease. Dr. Parr says of arsenic, " It is undoubtedly a very active and powerful medicine ; nor have we found any disadvantage from its use.

It has succeeded where bark, in every form and with every addition, failed." And I can safely add, that I have administered it to more than a thousand people, and I never saw any injury arise from its use in my practice. Besides the dropsy, it has been accused of producing rheumatism; but this opinion partakes too much of vulgar prejudice to merit a serious reply.

Arsenic is usually directed to be administered in very small doses at first, beginning with three, five, or six gtt. of Fowler's solution, morning and evening, increasing the dose one drop every day until a cure is effected. In this manner two or three times the quantity which was originally sufficient to accomplish a cure, is introduced into the system, and yet the disease continues In the mean time, the patient's face swells and the medicine is discontinued, as the physician should be, who prescribed it. Dr. Paris observes, that great and dangerous accumulations of medicines sometimes take place in the system, especially of mercury, lead, arsenic, &c.; and this would be the most easy and efficacious way of introducing it to effect that object As was observed of bark, arsenic should be administered during one apyrexia *only;* and it may be given in substance or in solution. The following are the combinations I have always used. Neither undergo decomposition by time, I therefore prepare enough at once to last several years.

Arsenical Solution. R. White oxide of arsenic ʒiij. Carbon. Potass ʒi. Pulv. Rhei ʒi. Rain water f lbj. Boil half an hour. Remove it from the fire; then add immediately brandy f lbss, and water enough to make the whole amount f lbjss: lastly, filtrate.

Arsenical Pills ℞. White oxide of arsenic ℈j. Pulv. Rhei ʒiiss. Oil of caru gtt. 10. Molasses q. s. Mix and make a mass to be divided into eighty equal pills.

From eight to fourteen of these pills may be administered according to the obstinacy of the complaint and the urgency of the case. In tertians they are all to be given during one apyrexia. In quotidians one half of what is intended to be administered may be exhibited during one apyrexia, and the other half during the next; and in quartans they are to be given within the eighteen or twenty-four hours previous to the expected attack. They should always be administered at as equal distances of time as convenient, not disturbing the hours of sleep, as that would derange the harmony of order amongst the functions.

When the drops are preferred, from sixty to a hundred may be taken, as the case may seem to require; dividing them in the same manner as the pills, eight or ten may be administered every two hours during the apyrexia, beginning in the morning at six and continuing until ten o'clock in the evening: the remainder may be taken the next morning. The most equal and eligible method is to put the quantity of drops to be given into a tea-cup, and add to it as many spoonsful of water as there are to be doses, and order one to be taken every two hours, &c.

Six or eight hours after the last dose of arsenic, a cathartic should be invariably prescribed. This is an injunction not to be neglected on any pretext whatever. Cathartics act almost as specifics in counteracting or removing any unpleasant consequences which might arise from the use of arsenic. I have not, in a single instance, where they have been administered, known any swelling of the face to succeed, even where four grains of arsenic had been exhibited. The most troublesome effect of the medicine is the nausea which it will sometimes create. This however is of short duration, and does not interrupt the cure.

By this plan of treatment the expected paroxysm may be prevented in ninety-nine cases out of a hundred; the diseased habit is thereby thoroughly broken up, and a cure is the result. The medicine being administered under these regulations, the paroxysm is no more to be expected than a tooth is expected to ache after it is extracted. A degree of commotion generally takes the place of the expected paroxysm, but it amounts to a little more than a slight fever, continuing a few hours. The operation of the cathartic being over, the patient finds himself in the possession of good health.

Mons. Bailly, contends that intermittents have a determinate course to run, and consequently do not admit of a cure. Now this is all perfect nonsense. They may be arrested at any time when the proper means are used, even to a day. I have repeatedly arrested them after the first fit, second fit, and in fact at all times, from three days' continuance to two years, and with the same facility. Sometimes, however, arterial action is elevated from the commencement, constituting the inflammatory diathesis of authors. This condition occurs most frequently in hard drinkers, and those who have indulged too frequently in the pleasures of the table. This state being opposed to the evolution of irritative or changed action, tends constantly to prevent the operation of the counter-irritants employed. Hence in such cases if the excitement be reduced by venesection, an emetic or a cathartic, according to existing circumstances, a less quantity of the curative agents will be required. Without the adoption of these preliminary measures, our counter-irritants in ordinary doses will fail; not because there exists any inflammation in a particular organ, but because their power is inferior to that to which they are opposed; we must then, of course, reduce the intensity of the opposing power, or increase that of the counter-irritant, either of which will effect the object in view: but as the former can be accomplished with less expense to the system than the latter, it ought certainly to be adopted.

4th. *Preventive.* To prevent relapses which so frequently occur amongst labouring people, it is necessary to have recourse to some mild unirritating tonic, given in simplicity, that is, not in tincture. For this, perhaps, no article answers better than an infusion of the bark of the common dogwood, (cornus florida) and the swamp dogwood, (cornus circinata.) The infusion may be taken cold, a few mornings after the disease is broken up. The rules of health are to be strictly adhered to, for any irregularity, exposure to rain, night air, any excess, &c. will inevitably derange the healthy order of movement, and favour the evolution in the nervous system, of the same habitual action which repetition has established.

Art. II. *Contributions in Medical Jurisprudence and Police.* No. III. By Theodric Romeyn Beck, M. D. Professor of the Theory and Practice of Physic in the University of the State of New-York, and Lecturer on Medical Jurisprudence.

Trials for Murder.

During the past year, (1825) two trials of considerable interest in a medico-legal point of view, have occurred in the city of New-York. I propose devoting this number to a statement of them, accompanied with such remarks as they naturally suggest.

Trial of Moses Parker and others for the Murder of David R. Lambert.

This case was tried on the 21st of June, 1825, before the court of oyer and terminer for the city and county of New-York. For the facts which I shall state, I am indebted to a pamphlet report of the trial, containing the testimony, the arguments of the counsel, and the charge of the judge. It is probably as accurate as similar publications usually are.

The deceased, a retired merchant of great respectability, had, in company with a number of friends, been spending the evening at the house of a gentleman, some distance from the city. As it was moonlight, they returned about one o'clock in the morning on foot, allowing their carriage to precede them. When arrived at the upper part of Broadway, near the "Sailor's Snug Harbour," a stone was thrown at the carriage by some one of a party ahead of it. The coachman stopped and charged the person whom he supposed guilty, with the act, but it was denied. While this was going on, the gentlemen came up. "Mr. Lambert preceded the rest a few paces, went to the carriage and asked what was the matter. The coachman replied, 'that one of those persons had thrown a stone at the carriage.' One of the young men then said, 'he accuses us of having thrown a stone,' to which Mr. L. answered, 'Did you not do it?' The reply was, 'No.'" This appears to have been the only conversation between the respective parties. Mr. L. and his friends walked on rapidly, to avoid any further contention; but in a moment or two, they were all attacked—several were struck in the face—another attempted to be thrown down, while a severe blow was given to Mr. Lambert, "as if upon the stomach," (*Mr. Pell's testimony*) which caused him immediately to fall. At the moment of receiving it, he made an exclamation, but never spoke afterwards—was taken up insensible, and died, either as soon as, or before he could be carried into the house.

Dr. John I. Ingersoll, was called to see Mr. L. at 3 A. M. and found him dead. A small bruise, or rather a scratch, was visible on the nose, and a mark on the under lip, as if cut by the tooth. The body externally in other respects appeared perfectly natural.

Drs. Post and Stevens examined the body eleven hours after death. There was no appearance on it like a contusion or wound, and indeed the external appearance of injury was very slight. The viscera of the abdomen were found perfectly natural, with the exception of the liver, which was remarked as extending to the left side. The stomach, however, was partly digested, and it contained the remains of a supper partially acted on by the gastric juice. On its internal surface, some small red spots of a stellated form were visible, apparently, (says Dr. Post) effusions of blood proceeding from some of the smaller vessels, and extending in different directions.

The lacteals were remarkably full, showing perfect digestion. And fourteen days after death, Dr. Post also examined the brain. "It contained no extravasated blood; but was such as to afford as satisfactory evidence, that death was not produced there, as if it had been examined at his death."

Witnesses, (among whom were medical men) deposed that they had known Mr. Lambert for thirty years—that he had enjoyed good health, and none of them had ever known him subject to fits.

The counsel for the prisoners, (as they afterwards stated) endeavoured to draw from the testimony, such inferences as would establish the probability of the present being an instance of sudden death from fear or fright. Their inquiries were also directed to the appearances observed in cases of a fatal blow on the stomach. It was generally agreed by the medical witnesses, that this might occur without leaving external marks of violence. Dr. Post stated, "that he founded his opinion on descriptions he had seen of such spots in persons that died of violence. A man was kicked on the navel, by a horse, and instantly died : the same spots were visible in the inner surface of the stomach : the difference in the cases is, that in the one outward bruises were visible, in the other not—this might have proceeded from the violence of the blow." Drs. Post, Stevens, and Cheeseman, were all asked whether, if these appearances had been found in a case of sudden death, without any knowledge of the attendant circumstances, they would necessarily attribute them to an act of external violence. The reply generally was in the negative—circumstantial evidence must guide—but it was strongly intimated by several, that the marks could *hardly be produced* without some act of violence, and the idea would hence necessarily suggest itself, that this was the cause. Dr. Stevens did not suppose that the same marks could be produced by a fall, for in such case, the muscles are in some degree contracted and ready to receive the blow.

The following question, with its answer, deserves transcribing. Would not the mark from a blow on the stomach, be confined to one spot? *Ans.* by Dr. Post. The concussion received by the stomach may affect it in various places.

The prisoners were found guilty of manslaughter.

As to the *cause* of death in this melancholy case, I apprehend there can be but little doubt. When the occurrence of a blow on so sensitive an organ as the stomach is actually sworn to; when the attendant circumstances and subsequent symptoms indicate its effects, it would surely be inconsistent with all the rules of sound reasoning and evidence, to adopt the alternative suggested by the prisoner's counsel, viz. sudden death—either *per se*, or originating from sudden fright. All writers who have noticed this subject, appear to consider death as a common consequence. Morgagni speaks of it in this way, as well as every subsequent author, on Medical Jurisprudence. "The consequences arising from blows on the abdomen," (says the former) "sometimes prove fatal within a few days, but at other times, *immediate death without any other obvious injury than ecchymosis on some of the viscera.*"* "When we reflect," says Foderé, "that the stomach is one of the viscera most profusely endowed with nerves specially devoted to the continuation of life; and that the epigastric region is the seat of the solar plexus and semi-lunar ganglion —(in themselves a kind of brain, or centres of action) we shall not be surprised that a blow on that organ may occasion instant death, without leaving any lesion beyond a slight blush on the stomach and its adjacent organs."† Lastly, says Smith, "Blows on the belly, without wounds, have frequently caused death. A very familiar illustration of this frequently occurs in that species of personal combat [which is] peculiar to Englishmen. A blow in the region of the stomach will cause instant death, without any visible signs of the manner being discoverable. It is supposed by the best authorities, that people are thus killed by the sudden shock to respiration, through the intimate connection of the eight pair of nerves."‡

The *appearances* observed both on external and internal *examination*, in the present case, correspond with the quotations given above; while the absence of disease in the heart and brain give as much certainty to the assigned cause, as it is possible to produce by any course of medical reasoning. The observations of Dr. Paris illustrate the narrative of the dissection in a most satisfactory manner. "A blow on the stomach sometimes occasions instant death—an effect which would appear to arise from an injury inflicted upon the eight pair and sympathetic nerves, by which the heart is instantly paralysed. In these cases, the heart has been found empty, and the stomach has appeared red and inflamed—this latter appearance is the obvious effect of the sudden cessation of the heart, producing the settling of the blood in the extreme arterial branches." And again, "In these cases, inflammation is necessarily out of the question—for death is immediate—the red and inflamed appearance, therefore, of the stomach, can alone be accounted for, by regarding it as the effect of the sudden cessation of the heart, producing an accumulation of the blood in the extreme arterial branches."*

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* Cooke's Morgagni, *Amer. Edit.* vol. 2. p. 257.

† Foderé, Medecine Legale, vol. 3. p. 350. "Le celebré *Hunter* assimilé avec sagacité cet effet nerveux à celui de l'eclair." *Metzger* Principes de Med. Legale, p. 91.

‡ *Smith's* Forensic Medicine, 2nd edit. p. 285.

It deserves mention, in concluding our comments on this case, that even the slight alterations just noticed, may sometimes be wanting; and this is still more necessary of remark, as an instance may possibly occur, in which their absence may lead to incorrect deductions. I therefore subjoin the following extract from the high authority of Sir Astley Cooper.

"Slight injury to the stomach, although it does not occasion any sensible organic change, will sometimes destroy life. A man recovering from fever and walking in Fleet-street, quarrelled with a woman; another female came up and gave him a blow on the stomach, which caused almost instantaneous death. Upon dissection, to discover the cause of his expiring so suddenly, no morbid change was perceptible.

"A healthy labourer belonging to the India house was attempting to lift a heavy weight, when another labourer came up and said, 'Stand on one side, let an abler man try,' at the same time, he gave the former a slight blow on the region of the stomach, when the poor fellow immediately dropped down and expired. On examination of his body, there was not any mark of violence discovered."†

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* Paris' and Fonblanque's Medical Jurisprudence, vol. 2. p. 121. 174.

† A. Cooper's Lectures, edited by Tyrrel. *Amer. Edit.* vol. 1. p. 11.

Trial of John H. Charpier and Charles H. Charpier, for the murder of Frederick L. Teige.

This case was tried on the 27th of June, 1825, before the court of oyer and terminer for the city and county of New-York. The evidence adduced was published in the "AMERICAN" of the 1st of July, and as the report appears to have been drawn up with care and accuracy, I shall not hesitate to rely on it.

Frederick L. Teige, a man advanced in years, and who a few weeks previous had arrived in this country from Switzerland, was found dead in the city of New-York, in the morning of Saturday the 28th of May, 1825. He lay in a gutter on his face, and underneath his face which did not touch the earth in consequence of the narrowness of the gutter, was a puddle of congealed blood, extending from ten to fourteen inches. On raising the body, fresh blood was observed on the nose and face, and indeed some dropped from his face, while in the act of lifting him. There was however none on the rest of the body. The right hand lay upon his back, and the right foot was drawn up.

The body, it appeared, lay at the foot of a declivity of about twelve feet, and the bank was composed of very loose sand. No marks of struggling, such as breaking away of the sand, were noticed, and no sand was seen on his back. His hat appeared to have fallen off and slipped from him, as it lay a little more on the hill. One witness stated that he saw on the side of the hill, marks of heels as if coming down the bank, "in a kind of slant of the feet from where his hat lay." On the bank, there were marks of five or six steps by one person.

The Coroner on his examination stated, that around the neck of the deceased and between his vest and shirt, was a green cord, loose. The neck cloth was very tight, as well as the shirt collar—so tight indeed, that the witness could scarcely introduce his finger between the neck and collar, and after unbuttoning it, he could not have buttoned it again. None of the clothes were torn, nor was the cravat out of place. On the neck, the marks of a thumb and three fingers were visible, but witness could not say whether they were of the right or the left hand.

Dr. John J. Graves examined the body in the first instance. There was a wound on the left temple, about one inch and a half from the eye, one inch in length, and crossed by another of the same length; the wound extended to the bone, and there was an abrasion of the skin on the top of the nose. On the right side of the head, the skin was rubbed off to the extent of a dollar. There were some marks of the skin being rubbed off on the right and left side of the throat. No fracture was discovered, and on taking off the skull cap, he observed a large quantity of serum. The witness also added, that in apoplexy and death from strangulation, the same appearances are observed in the brain, but on his cross examination, in answer to the question whether a large quantity of serum in the cavities of the brain, was not a distinguishing characteristic of apoplexy, he replied, that he believed it was. He had not been able to find that it followed strangulation. *Question.* Was there not a sufficient quantity (of serum) in this case, to indicate apoplexy, as distinguished from strangulation? *Answer.* There was. *Question.* Might not the bruises on the head have been easily occasioned by the falls, which a drunken man would meet with in staggering through the streets? *Answer.* Yes.

Dr. John W. Francis appears to have been subsequently called on to examine the body, (at 1 P. M. of Saturday.) The countenance was very turgid and discoloured, and loaded with blood. The eyes protruded—the lips were also protruded and somewhat livid. The tongue pressed firmly against the teeth. About the neck was a strong mark, as of a ligature or handkerchief forcibly applied. This was very distinctly visible, and nearly as low down as the collar of the shirt. The jugular veins were much distended, and the neck generally swollen. These marks are characteristic of a ligature being externally applied and with great violence, producing death.

With regard to the wound on the head, witness did not pay much attention. He saw some abrasion on the side of the scalp, but is not positive on which side—rather lateral and a little posterior. The upper part of the head had been removed before witness examined the body.

Witness afterwards examined the body internally—the heart, the lungs, and the larynx. The right side of the heart was considerably surcharged with blood—the lungs were loaded with blood of a dark colour—but the most important section was that of the larynx—the internal parts exhibiting marks of strong external violence. These marks were strong discolorations in the larynx, arising from the effusion of blood. From the examination, it is the professional opinion of the witness, that it could have arisen from no other cause but strangulation from a ligature externally applied.

On his cross examination, Dr. F. stated that the deceased was a stout, athletic man, of a large neck and full frame. The carotids and jugulars were quite full of blood. Saw no marks of injury on the body. Although witness allowed that the recumbent posture, intoxication, or any ligature around the neck might all incline to apoplexy, yet he thought, " that the mark on the neck could not have been caused by a tight collar, but must have arisen from some ligature violently applied."

Dr. Anderson examined the body in company with Dr. Francis and corroborated the latter's statement. The smaller vessels of the larynx were ruptured. On his cross examination, he allowed it possible, that the marks on the neck might have been occasioned by the deceased, in an effort to free himself from the compression of his own cravat. And in answer to some questions, he replied that a sudden fall headlong would give an extraordinary momentum to the rush of blood to the head—but doubted whether it would particularly affect the larynx. He also allowed, that in cases of strangulation, the jugulars would be most distended above the ligature, and that in this case, he did not observe any such appearance.

Two brothers, John and Charles Charpier, countrymen of the deceased, and who had come over with him in the same vessel, were indicted for his murder, and tried on the 27th of June, 1825. Several suspicious circumstances led to this—

such as their being with the deceased late on Friday evening, and also having some of his property in their possession. This last appears however to have been given to them, and it was also proved, that Teige at the last place where they were seen together, stated that he was going two miles out of town. It further appeared on testimony, that the character of the prisoners was good—that Teige had been for years in his own country, in habits of gross intoxication—that he had been drunk every day during the week of his death—and particularly so, on the Friday evening at 10 o'clock, preceding the Saturday morning when he was found dead.

The jury acquitted the prisoners, without leaving their seats.

Two questions arise on a review of this narrative. 1. *Was the death of Teige owing to accident or design?* 2. *If the latter, were the prisoners guilty of the crime?* The jury probably with great justice decided that they were not, and we have therefore to consider only the first inquiry; and its investigation includes the most obscure and debateable part of Legal Medicine. The facts which we have are few, while the morbid examinations have been so imperfect and general, that we can only hope to arrive at probabilities, and even these require some qualifications. In the case before us, the death, if *accidental*, was undoubtedly owing to *strangulation*, and it is this combination, that renders it so very peculiar and interesting.

After a careful survey, I am inclined to the opinion, that no attempt was made to destroy the life of Teige, but that his death was the result of accident. I make this declaration thus early, because it will lead to a better understanding of subsequent remarks; but I must also here add, that the opinion is not without its difficulties.

The *previous history* of the individual first deserves attention. He had been for years in habits of intoxication—was drunk during every day of the week of his death, and particularly on the evening of the night on which he died. He was a stout, athletic man, of a large make and full frame.

The external appearance of the body and its situation are striking. He lay at the foot of a declivity of about twelve feet. The sand which constituted the hillock was not disturbed, further than by the feet of one person. The body was found in the direction that might have been expected had he fallen from this height, and the slight abrasions on the nose and face were barely such as would result from striking on the pavement. Around the neck was his shirt collar, so tight, that the coroner could scarcely get his fingers between them, and over this the neck handkerchief also very tight. This last was not out of place, nor were any of his clothes torn.

If we suppose that apoplexy was produced here, we have three circumstances all corroborating the opinion.—*The habits of intoxication.* On this I need not enlarge, as it will be universally allowed that they predispose to the disease, in a full habit. *The tightness of the dress around the neck.* " Many accounts of facts might be quoted in support of the opinion, that tightness about the neck and other causes of obstruction of the veins carrying blood from the head, or interruption of the free transmission of blood through the lungs, may give occasion to apoplexy. Dr. Donald Munroe states, that he has known soldiers carried off by apoplexy, in consequence of stricture of veins of the neck, from their having been obliged to wear their cravats too tight. Winslow has made a similar observation in the Memoirs of the Academy of Sciences for the year 1741."* Both these circumstances which I have mentioned would aggravate the severity of the attack, *if the body, as in this case, was in a depending situation*, the head lower than the rest of the body, and that again with the face to the earth. It will be readily conceded by all who have ever fallen in a similar way, that the clothes are usually drawn down, and thus tightened around the neck, and produce very unpleasant sensations, unless the person is speedily relieved. How much more violent must have been the effect on this unfortunate being, unable probably to assist himself in the slightest degree.

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* Cooke on Nervous Diseases, Amer. Edit. p. 107. See also Abercrombie on Apoplexy, Edinburgh Med. and Surg. Journal, 14. 572.—" A boy mentioned by Zitzilius had drawn his neckcloth remarkably tight and was whipping his top, stooping and rising alternately, when after a short time, he fell down apoplectic. The neckcloth being unloosed and blood being drawn from the jugular vein, he speedily recovered. Kortum mentions a Swedish officer, who to make his men look well in the face, obliged them to wear their collars very tight; the consequence was, that in a few years, half the regiment died of apoplexy."

In connexion with the external appearances, one or two circumstances require particular mention. The *blood* noticed on the sand and in the gutter, doubtless proceeded from the nose. It does not seem, according to the testimony of the witnesses, to have come from the slight wounds on the face and head. *The marks of fingers on the neck*, are mentioned by the coroner as visible, but he is not positive whether they were of the right or left hand. This is one of the appearances which render the case somewhat doubtful ; but it may certainly be explained in a manner similar to what Dr. Smith has done, when remarking on a case where manual strangulation was actually the cause of murder. "If (says he) what has been said on death from internal morbid causes be referred to, it will appear admissible that a person in a fit, or in a state of extreme intoxication, falling accidentally, may get into such a helpless posture, that his own hand, or some other hard body pressing on his throat, would occasion death, or this may occur from other causes, while pressure on the neck, leaving marks, may be merely adventitious."* One of the medical witnesses indeed allowed it possible, that the mark might have been produced by the deceased, in an effort to free himself from the compression of his own cravat. Lastly, there was *a strong mark on the neck*, "nearly as low down as the collar of the shirt." It must of course be matter of opinion merely on this point, yet I can imagine that the continued pressure of a shirt collar for some hours, both before and after death, producing the extreme tightness mentioned by the coroner, would possibly leave as distinct a mark on the neck, as strangulation by another. It is to be regretted, that the breadth of the mark, and its exact situation, were not more minutely described, and the correspondent place of it and the shirt collar should undoubtedly have been the first thing noticed before the body was moved. Certainly the agitation of carrying it might have shifted the relative situation of the latter.

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* Gordon Smith's Forensic Medicine. 2nd edit. p. 211.

The countenance was very turgid and discoloured, and loaded with blood. The eyes were protruded—the lips were also protruded and somewhat livid—the tongue pressed firmly against the teeth. The jugular veins were much distended, and the neck generally swollen. These I shall hereafter notice.

Internal Examination. The *head* does not appear to have been minutely examined, and we are not informed whether there was extravasation of blood, or fullness of the blood vessels. A large qnantity of serum was however found, and Dr. Graves in answer to a question, stated that he believed its presence was a distinguishing characteristic of apoplexy, as he had not been able to find that it followed strangulation. This is certainly correct, and the reason probably is, that usually persons in sound health are the victims of strangulation, and in such, of course, we should not expect to find marks of disease in the brain. But it should also be observed, that although a *large* quantity of serum may, in itself, and even unconnected with any other morbid appearance, indicate a predisposition to an apoplectic attack, yet its presence is too often considered unnatural. " No pathological anatomist should be ignorant that serous effusion may exist throughout the brain so frequently and to such an extent, when no cerebral affection preceded death, that unless some other test of disease be observed, the serous effusion alone can never be assumed as morbid, and consequently that for want of such a test, an almost incredible proportion of the facts collected both by the ancients and even by the most recent of the moderns, is utterly useless for the purposes of science."*

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* Edinburgh Med. and Surg. Journal, vol. 21. p. 200.

The *Heart and Lungs.* The right side of the former was considerably surcharged with blood, and the lungs were loaded with blood of a black colour.

The *larynx*, on its internal surface, exhibited strong discolorations arising from the effusion of blood.—Its smaller vessels were ruptured. This is one of the most remarkable circumstances attending the present case. The examination of the throat has been greatly neglected in instances of strangulation, and I cannot find a single one, in which the state of the larynx has been noticed. Even in the case of General Pichegru, so late as 1804, who was said to have strangled himself in the Temple at Paris, this part was totally neglected.* But we should suppose that where persons have been hung, the force of the sudden descent of the body, exerted particularly on the part in question, would leave a morbid change more extensive and indeed more violent than in simple strangulation. Such however is not the fact. In an instance, examined by Esquirol and Orfila, of suicide, where the deceased hung suspended six hours, the internal surface of the cartilaginous rings of the trachea only presented some slight enlargement of the capillary vessels, (*herborizations noiratrés qui semblaient appartenir aux capillaires veneux.*)†

In the trial before us, I will only say, that it seems a result inconsistent with the idea of homicidal strangulation, inasmuch as the dress and situation of the body do not correspond with such an idea, and I would suggest, whether there may not have been previous irritation, and indeed inflammation of the parts, owing to the habits of the individual. "The inner membrane of the larynx, (says Baillie) is very apt to be inflamed, and this generally accompanies the inflammation of the inner membrane of the trachea. Sometimes however, an inflammation shall take place which is confined to the cavity of the larynx." In another place, he describes this state as consisting in a crowd of minute florid vessels—which give it a general appearance of vascularity.* If a state of irritation—the precursor possibly of more active disease, may be allowed to have been present, (and such marks of irritation are, I apprehend, more or less frequent on those who are constantly intoxicated,) might not the pressure around the neck, have produced the rupture and discoloration mentioned by the witnesses? The suggestion is thrown out without intending to decide on the nature of the phenomenon.

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* Chaussier Medecine Legale, p. 293. This distinguished author severely censures the omission.

† Orfila. Lecons de Medecine Legale, vol. 1. p. 566.

Having thus reviewed all the appearances, both external and internal, which were related on the trial, I venture to repeat my former suggestion, that the weight of testimony is in favour of its being a case of *accidental strangulation*, rendered positively fatal by inducing apoplexy—or at least an apoplectic state of the vessels. "Strangulation, (says Dr. Abercrombie) when the neck is not dislocated, seems to be simply apoplexy. A man brought after execution to Sauvages, was recovered by three bleedings, sat up and talked, his breathing and deglutition being natural. After a short time, the part of his neck where the cord had been applied began to swell, so as evidently to impede the circulation in the veins of the neck; he became drowsy, his pulse and respiration slow, without dyspnœa, and in a few hours he died apoplectic. A woman mentioned by Wepfer, recovered after execution under the same treatment. After her recovery, she was for some time affected with vertigo, which subsided gradually.

"The apoplectic state, as it occurred in these examples, could neither depend on increased quantity of blood, nor increase of its impulse, but simply upon *interrupted circulation*; and this principle, I think, will be found to accord with all the phenomena of simple apoplexy. By the term interruption, I here mean such a derangement of the circulation in the head, that more blood enters by the arteries than can be transmitted by the veins."†

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* Baillie's Morbid Anatomy, 3d Amer. Edit. p. 56, 57.

† Abercrombie on Apoplexy, Ed. Med. and Surg. Jour. vol. 14. p. 572.

While considering this question, it must also be remembered, that the continuance of pressure on the neck produced a suspension of respiration—evidently the precursor of death. We thus see how the train of appearances are explained.—The heart, according to Mr. Brodie, continues to pulsate for several minutes after the breathing has entirely ceased, in consequence of which, the blood which passes through the pulmonary vessels no longer receives the influence of oxygen, and therefore *black* blood circulates,* (as was here the case—the lungs being loaded with black blood and the right side of the heart surcharged.) This also completely illustrates the state of the countenance, the eyes, lips, and tongue.

In closing these imperfect comments, I will remark, that the instance before us, is one, which, *with all its attendant circumstances*, is not very likely again to occur. Such circumstances however, are of most value in forming an opinion, and they will continue to be so, until coroners and coroner's juries are more impressed with the importance of their functions—until dissections shall be more minute and complete—and (above all) until the study of legal medicine is made the actual business of at least a portion of the profession, rather than, as it now is, a subject of speculation and hasty examination, by witnesses too suddenly summoned, and too often imperfectly prepared.

Albany, Sept. 5, 1826.

ART. III. *Case of Malformation of the Œsophagus and Trachea.*

By A. F. HOLMES, M. D. Corresponding Member of the Medico-Chirurgical Society of Edinburgh, and Professor of Chemistry and Materia Medica in the Medical Institution, Montreal, Lower Canada.

A CHILD was delivered by my friend Doctor Arnoldi on the 13th March, 1825, without any extraordinary appearance, except a great abundance of liquor amnii. On inspection, the anus was found imperforate, an imperfection that was easily remedied by a stroke of the lancet, after which, several evacuations of meconium took place. The child lived till the

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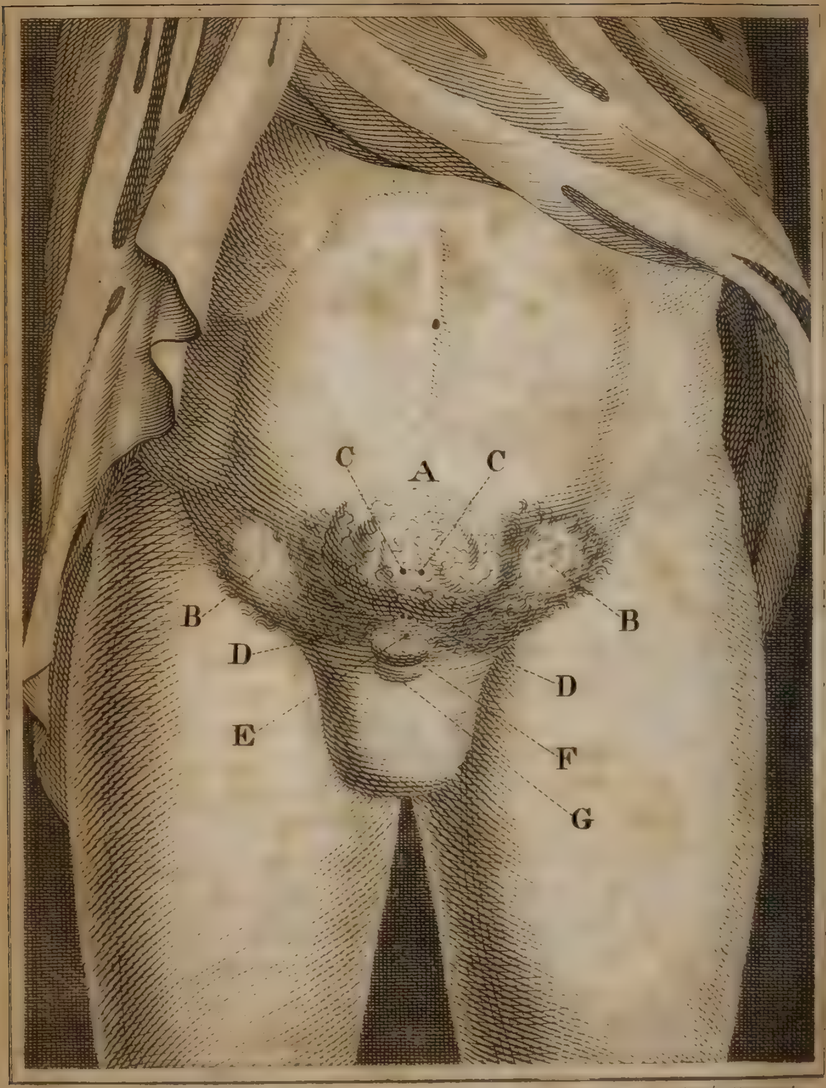
* Paris' and Fonblanque's Med. Jurisprudence, vol. 2. p. 32.

23d. It was remarked, that whenever applied to the breast. it drew the nipple as usual, but was immediately seized with symptoms of suffocation, and these were only relieved by its throwing up the milk it had taken, which was always very frothy and mixed with mucus.

Autopsia. Externally, body emaciated. Abdomen distended. An incision being made along the mesial plane from the chin to the sternum, and the parts carefully examined, they appeared quite natural. The tongue being cut through, the pharynx was separated from its connexions with the spine. Its interior surface was very red. A bougie introduced into the œsophagus, passed only to the depth of an inch and a half, beyond which it could not be inserted. The thorax and abdomen were then laid open, and the whole of their contents, together with the diaphragm, removed. The stomach appeared natural. A large bougie passed from it up the œsophagus, to within three fourths of an inch of the former, but the portion of the tube between them appeared obliterated. The trachea being laid open in front, the mucous membrane exhibited much vascularity, and about half an inch or less above its bifurcation into the two bronchia, a small orifice, one twelfth of an inch in diameter, was observed, through which a probe passed at once into the lower or ventricular portion of the œsophagus. The œsophagus was found to taper gradually from the cardia to its upper orifice in the trachea, where it was only of the size mentioned, and the smallness of the aperture had prevented the passage of the bougie through it. The upper or pharyngeal portion of the œsophagus was of larger diameter than the ventricular, and terminated in a cul de sac. The larynx and lungs, natural and healthy. The right auricles, filled by a polypous concretion, and the foramen ovale still pervious. It had the appearance of a net work, through the interstices of which, the blood of the auricles could be easily pressed. The intestines were much distended with air.

As the appearances on dissection sufficiently explain the symptoms previous to dissolution, I shall only remark, that the abdomen was much distended many days before death.



Sam^l. Maverick

and that much air was discharged by anus. As no food could find access to the stomach, which by fermentation might have afforded air, I am led to suppose, that during the efforts of deglutition, air from the trachea must have been swallowed, and this is corroborated by the mother having been conscious, that air was passing into the stomach.

The foregoing case, though of no practical importance, may be interesting, as presenting a species of malformation which I have not found described in any work I have perused, I have therefore sent it for insertion in the Medical and Physical Journal.

ART. IV. *A Case of Malformation of the Urinary and Genital Organs.* By CHARLES DRAKE, M. D. Physician to the New-York State Prison. (With a Plate.)

THE subject of this case was, in his day, a famous pickpocket, and spent many years of his life in prison, where he fell under the observation of different medical gentlemen. A tolerably accurate description of the external appearances, with a plate, is given in the Medical Recorder for 1820. He died a prisoner in the state prison of this city ; and my situation in the institution enabled me to ascertain the actual condition of the pelvic viscera, and to verify or correct the conjectures that had been formed concerning them, by those who had examined him during his life-time.

Robinson was a square-framed, athletic Hollander, remarkably well formed in every respect, except the malformation in question. He died April 1826, aged 52 years. He appeared to have enjoyed vigorous health until within three months of his death ; but had complained much for years past, of pain in the region of the kidney, with a scanty discharge of urine. These symptoms however, it was thought, he exaggerated for the purpose of obtaining an allowance of old Hollands, to which he had an inordinate attachment. For the last few weeks he continually discharged much purulent matter from the parts surrounding the termination of the ureters: indeed, at this time the unnatural excrescence presented an ulcerated, spongy, and phagedenic appearance, when he rapidly wasted, and died hectic. During his health he had always defended the parts from the contact of his clothing, by means of a tin plate, properly adjusted, and which was terminated by a urinal to receive the urine, continually dribbling from him.

Description of the Malformation. The first part that attracted attention in this remarkable malformation was a fleshy mass, situated over the region of the symphisis pubis. It was not unlike, in its general appearance, to the adhering surface of a placenta, and, at the time of the patient's death, measured in circumference at its base, nine inches and three fourths; its highest elevation was about an inch. The ureters having first crossed each other, terminated rather below the centre of this tumour and about half an inch apart. The urine, continually dribbling from these openings, kept the surrounding parts of the tumour in an abraded and inflamed state. The vasa deferentia terminated with patulous mouths at the lower verge of the fleshy mass, where the sulcus, representing the urethra, commences. These openings were as near together as in the natural state of these organs, and had between them a narrow granular elevation, which might be considered a crista galli. From the rami of the ischia proceeded the crura cavernosa penis, on which were directly placed, half an inch below the openings of the vasa deferentia, a glans of ordinary size and form. This glans was placed reverted, with its lower part uppermost, possessing an ample fold of skin below it—the vestige of a prepuce, but devoid of any trace of frenum, and the upper part of the parietes of the urethra deficient, so as to constitute the urethra a mere sulcus, which extended between the risings of the crura up to the verge of the fleshy mass before described. Directly beneath this urethral sulcus, extending back beyond it, lay the prostate gland. A short distance below the openings of the vasa deferentia, in the sulcus, were three or four minute foramina—these were thought to be the excretory ducts of the prostate. Between the peritoneum and the inner surface of the os pubis, where this bone joins its fellow to form the symphisis, lay on each side a yellow condensed cellular substance, resembling, in some degree, in structure, the vesciculæ seminales, the rudiments of which bodies I have no doubt they were. The vasa deferentia passed under them, and might have communicated with them, but the parts were so altered and condensed by previous attacks of inflammation, that I despaired of tracing the connexion.

The testicles were large and apparently well formed, the scrotum without raphæ, and the anus situated more anteriorly than under ordinary circumstances. In each groin where the spermatic cord passes over the brim of the pelvis, there was a fulness and projection which gave the appearance of herniæ, but which, on examination, proved to arise from the unnatural size of the angles of the ossa pubis, which, instead of forming the symphisis, terminated at this place, leaving a space between the two bones of nearly four inches. As the body exhibited no trace of an umbilicus, the first object on opening into the abdominal cavity was, to ascertain how the fœtus had been nourished in utero. The round ligament was found passing from the fissure of the liver, between the peritoneum and the abdominal parietes, directly into the fleshy mass. From which it appears probable, that the fœtus had not possessed a funis, but had been attached to the uterus by means of this substance, which, in its general aspect, as has been before observed, was not unlike the adhering surface of a placenta.

The kidneys were in their natural situation, and the ureters took their usual course across the pelvis, terminating as pointed out above, without the intervention of any sac or bladder. The left kidney and ureter appeared to be healthy in every respect. Not so those of the right side: the natural structure of the kidney was almost entirely obliterated, presenting a tuberculous appearance, with internal ulcerations and purulent deposits. The surrounding parts were greatly thickened and altered in texture, showing the traces of former inflammations. The ureter of this side quite to its termination, was also much diseased, its coats thickened and of a cartilaginous firmness.

The capacity of the pelvis was less than natural, and the different bones shorter and thicker than in a well formed pelvis. The exact form and dimensions of these parts could not be ascertained, without removing so much of the soft parts as to destroy, in a great measure the value of the preparation; but the following may be relied upon as not varying materially from the truth. The angles of the ossa pubis were separated from each other about four inches. The rami of the ossa pubis and of the ischia seemed to proceed nearly perpendicularly to the tuberosities of the ischia, so that the thyroid foramina must have been smaller than usual, and altered in shape. The superior transverse diameter of the pelvis was five inches; the superior anterior-posterior diameter, four inches; the distance between the tuberosities of the ischia was three inches; between the alæ of the illia posteriorly, two inches; and between the superior anterior spinous processes, ten inches.

On the whole, one would form a very good idea of this singular malformation by imagining the bones of the pelvis separated at the symphisis to the distance of four inches, a fleshy mass placed on the pubic region, which, in the fœtal state, served the purposes of a placenta, and, in the adult, that of a bladder, by giving issue to the ureters, and finally, a glans penis placed reverted, a short distance below with a sulcus representing a urethra, leading from its point up to the lower edge of the fleshy mass where the vasa deferentia open. The other parts were as naturally placed as these arrangements would allow.

Robinson acknowledged that his venereal desires had remained through life undiminished; and, indeed, the appearance of his testicles did not indicate, that the long period of inactivity to which they had been doomed, or, at any rate, the want of any other stimulus than what was supplied by desire, had either diminished them in volume, or softened them in texture.

EXPLANATION OF THE PLATE.

A. The fleshy mass.
B B. Protuberances of the ossa pubis.
C C. Orifices of the ureters.
D D. Orifices of the vasa deferentia.
E. Orifices of the prostate ducts.
F. Glans penis.
G. Vestige of prepuce.

Art. V. *Account of a Case of Concealed Hemorrhage in delivery.*

By Dr. Orrin Wright, of Pittsfield, Massachusetts.

A short time since, at evening, I was called to visit Mrs. C. aged thirty-six, the mother of six children. The family were in great alarm. Mrs. C. had a deathly paleness of countenance, a cold sweat covered the surface of her body, her breathing was laborious, pulse scarcely perceptible at the wrist. She was however able to give the following relation. She had expected to be confined in three or four weeks, had no recollection of any fall or hurt, had not been sensible of any motion of the child for thirty or forty hours, felt an unusual faintness when she rose in the morning, which symptoms had been growing worse through the day. During the last twenty-four hours she had been constantly increasing in size, so that when I arrived her abdomen was tense and much enlarged. She had fainted twice before my arrival, a circumstance that never occurred to her before, though of a delicate constitution. She had experienced no sensation like labour pains, but a uniform unremitted pressure, till at the present time she thought the child must be born, but observed, "I feel strangely; I may be in travail and may be dying." She complained of a load and distress at the stomach, caused by her supper, which she ate in hopes of relieving her faintness; it consisted of materials almost indigestible for a person in health.

Upon examination, I found the membrane was filled by the waters and protruding externally, and the head in a natural position presented for delivery, and was born within fifteen minutes after I saw her, without any increase or diminution of pain. Along with the dead fœtus, was also expelled a coagulum of blood, weighing, as judged, seven or eight pounds, with the placenta entire, and with the appearance of having been some time detached. Besides the above enormous mass of coagulated blood numerous smaller masses, with a quantity of fluid blood escaped at the same time. The usual means for suppressing hemorrhage were resorted to and with success, so that very little blood was lost after the first moment of delivery. She complained of faintness, distress at the stomach, violent pains in her limbs, and was very cold. Pressure was applied to the abdomen, laudanum, ether, and cordials were administered to no purpose—she expired in about three hours after the birth of her child. Her chance for life was evidently lessened by the loaded and oppressed state of the stomach—the system not appearing to be in the least affected by medicines given, or means used to restore animation.

It appears evident, that in the above case, the separation of the placenta occurred, in part at least, thirty or forty hours previous to child-birth, yet not one drop of blood escaped externally, until the birth of the child. Is it not probable, that the separation of the placenta commenced in its centre? And when its detachment was complete, what but the constant and entire occupation of the passages by the head of the fœtus, the membranes, and the coagulum, prevented the escape of blood?

ART. VI. *Quarterly Report of Diseases treated at the New-York City Dispensary, from the* 15*th June to the* 15*th Sept.* 1826.

Anasarca	6
Aphthæ	9
Amenorrhœa	29
Abscessus	6
Ascites	1
Abortio	1
Aneurisma	1
Bronchitis Chron.	17
Catarrhus Simplex	48
Cephalalgia	23
Cephalea Nauseosa	18
Cholera	34
——— Infantum	30
Cardialgia	16
Colica	6
Cachexia	1
Contusio	75
Caries	1
Contorsio Spinæ	1
Cystitis	1
Dyspepsia	29
Delirium a Potu	10
Dentitio	8
Debilitas	18
Diarrhœa	108
Dysenteria	85
Erythema	1
Erysipelas	10
Epilepsia	4
Epistaxis	2
Enteritis	6
Febris Simplex	65
——— Remittens	23
——— Intermittens	64
——— Typhus	6
Fractura	10
Fistula in Ano	2
——— Lachrymalis	2
Gastritis	1
Gastrodynia	62
Hæmoptysis	4
Hepatitis Chron.	12
——— Acut.	2
Hæmorrhois	4
Herpes Circinatus	1
Hepatirrhœa	2
Hydrops	10
Hydrocele	1
Hysteria	3
Ischuria	1
Icterus	3
Impetigo	6
Leucorrhœa	7
Lichen Simplex	20
——— Pilaris	7
——— Circumscriptus	2
Laryngitis	1
Lithiasis	2
Luxatio	2
Marasmus	3
Menorrhagia	4
Mastitis	3
Nebula	5
Otitis	3
Ophthalmia Simp.	40
——— Chron.	5
——— Tarsi	6
——— Purulenta	3
Orchitis	6
Obstipatio	62
Otirrhœa Purulenta	2
Pleuralgia	36
Pneumonia	24
Pleuritis	20
Pertussis	41
Parotitis	8
Phthisis Pulm.	30
Phrenitis	3
Paralysis	11
Porrigo Scutulata	2
——— Favosa	17
——— Larvalis	4
Plethora	54
Psoriasis	10
Phlegmon	10
Prurigo	2
Paronychia	3
Periostitis	1
Prolapsus Uteri	1
——— Ani	2
Rheumatismus Acut.	12
——— Chron.	73
Rubeola	16
Surditas	6
Syphilis	39
Scrofula	5
Splenitis	1
Struma	12
Scabies Inveterata	9
——— Vesiculosa	36
——— Pustulæ	12
Strophulus Confertus	4
——— Intertinctus	1
Scarlatina Simplex	2
Staphyloma	1
Scorbutus	2
Tumor	11
Tinea Ciliaris	1
Tonsilitis	10
Urticaria	3
Ulcus Corneæ	2
——— Chron.	51
Ustio	10
Urethritis	32
Vermes	41
Vulnus	34
Varicella	6
Variola	5
Varioloid	8
Total	1795

The diseases prevalent at the date of our last report were those arising from derangements of the chylopoietic viscera. Inflammatory affections were not uncommon, but these gave way, gradually, to the disorders generally attendant upon the warm season. Intermittents of a mild character began to make their appearance during the first weeks of July—these have been increasing in number, up to the present time. In proportion to their numerical increase, they at the same time become more complicated in their symptoms, assuming a remittent character, and exhibiting a tendency to a continued form, until finally, about the early part of September, the combination of symptoms and their disposition to pass and repass from one to the other, rendered it difficult to draw a line between them.

The remittents of which we speak were, for the most part, sudden in their invasion. The patient, without any preparatory symptoms, would be attacked with a chill, followed by a violent febrile paroxysm, accompanied with nausea, restlessness, lassitude, and prostration. This stage would last from ten to twelve hours; at the end of which time, when we have generally first visited them, the disease has been characterised by redness and flushing of the face, with an expression of weariness and distress, red, swollen, watery state of the eye—moist tongue, with white fur in the center, tinged with yellow toward the fauces, edges clean—sense of great oppression and sinking under the xiphoid cartilage, very distressing and giving rise to a sensation as if a ball were rising in the œsophagus—pain upon slightest pressure between the lower extremity of the sternum and umbilicus—no tenderness in the region of the liver—violent pain over the eyes and about the occiput, shooting with much acuteness along the spine to the loins, where it was most distressing. General weariness, but more particularly feebleness in the knees—soreness in every joint—general surface dry and hot—dry cough, huskiness of the voice, anxious and irregular respiration—extreme thirst—breath fetid. Pulse full, scarcely compressible, regular, and seldom over 90. Total deprivation of appetite, and great torpidity of the bowels—wakefulness, but no delirium. During this stage there was no chill, or even a sensation of cold. The paroxysm would increase in violence about noon, and continue at its height until the evening—during this time we have observed, that there is either an indisposition to answer any question, as if it were too much labour, or there has been an extreme degree of impatience and restlessness when addressed. There was no perfect apyrexia, but an evident remission in the morning. This stage of the fever would last three, four, or five days, if the remedies employed did not produce a solution of the disease. If a change for the better did not take place at this time, there would suddenly occur depression, listlessness, coma, and often aphonia—a feeble and quick pulse—dry, parched, and shrivelled tongue—and a variable state of the skin. At one time, the feet, hands, and tongue were cold, while the surface of the body would be of the natural temperature. This would suddenly change to flashes of heat pervading the whole body, and following each other in quick succession, about midnight, perhaps, a warm perspiration would ensue, when a remission would take place and last until morning. During the whole of these successive changes, the patient would lie on his back in a comatose state—respiring freely, and but little quicker than natural. At this crisis, if in the course of twenty-four or thirty-six hours, a free and warm perspiration took place, the tongue became moist, and the pulse was lessened in frequency, the patient would articulate freely, and become anxious to change his position. Convalescence followed, with, perhaps, a disposition for a little febrile action every alternate day, until recovery was firmly established.

These symptoms were sufficiently common to characterise the disease, but there were others occasionally occurring, such as acute pains confined to the breast, eyes, spine, &c. Spontaneous vomitings were also not unfrequent. In one or two cases, the pains in the joints were so great and so strongly simulated acute rheumatism, that it was difficult, at first, to come at a correct diagnosis. We have also seen a case, where after the first paroxysm, painful enlargements of the inguinal glands took place, the surface to a considerable extent had a bright erythematic appearance, at the same time the leg, over the left tibia, became erysipelatous.

A few cases of petechiæ ensuing, after the fifth or sixth day of the fever, have been met with. One of these was the case of a patient of the Dispensary. She had been complaining for a week before she applied for relief. She was first seen on the 23d of August, and was then labouring under great pain in the head, back, and right side. Pulse 140. On the 26th, petechiæ were observed to some extent upon the body. 29th, these disappeared, and a recurrence of the pain in the right hypochondrium took place. A blister was applied, and free purging directed with benefit. On the 1st of September she was convalescent, when she was put upon the use of tonics, and discharged as cured on the 8th.

Amongst the anomalies we may also mention the following cases; the first as being rare, the second as showing a peculiar seat of irritation.

A coloured man, aged 35 years, was attacked with dysentery six or eight weeks since. He took a cathartic, which operated so freely that he was induced to take some laudanum. The catharsis was suddenly checked, since which time he had been affected with slight pains about the umbilicus. On the 9th of September he applied at the Dispensary for relief, and was visited in the evening. There was, at that time, pain about the loins and umbilicus, extreme tenderness of the abdomen—moist and furred tongue—pulse about 90, regular and compressible—skin hot and dry—*left testicle swollen and painful.* From an examination of the case, it proved to be an intermittent of the tertian type, somewhat anomalous in not having a chill after the first paroxysm. *Coincident with the accession of fever on the alternate day, his testicle became tumid and painful; during the imperfect apyrexia of the intermediate day these subsided.* Another singularity in this case was, that *either testicle became affected*, but at no time were both *simultaneously so.* There was also, pain shooting down from the loins in the course of the spermatic cord. He passed his water freely, and did not labour under any affection of the urethra.

The other case referred to was that of a coloured fireman of one of the steam-boats. He was first seized with pain in the back of the head, spine, and loins, giddiness and nausea. His tongue was moist and slightly furred—pulse regular and compressible. He had perfect apyrexia every third day. The regular paroxysm had its accession with slight chill, which was immediately followed by intense pain in the spine. So great was the distress that the slightest movement of the body excited a tendency to syncope and universal tremor. His appetite was but little affected, and the pulse in the height of the paroxysm did not exceed 85. A brisk purgative and stimulating liniments were first directed, and on the first apyrectic day after our visit, he was put upon the use of quinine. Without any other remedies he returned to his business in less than a week.

In noticing these fevers as particularly as we have done, we have in view the identification of our typhus, remittent, and intermittent fevers. Dr. Rush has observed, that "there is but one fever." Without assenting to his proposition, we have been convinced that there is less specific difference in fevers than is generally supposed, and this opinion has received strong confirmation from the writings of Dr. Armstrong. The first author founded his doctrine upon the variety of fevers having but one proximate cause—a disease of the sanguiferous system. However ingenious his arguments may appear, we think that many of them are rather speculative than true. That typhus, remittent, and intermittent are, as Dr. Johnson observes of bilious fever and dysentery—" branches of the same stem," we believe, from the similarity of the combination of symptoms—from the facility with which they pass from one to the other—from their originating in the same districts, and arising, as we think, from the same causes.

That the different types of these fevers pass from one to another, must have been observed by most physicians. We have already mentioned that this occurrence was noticed during the present season. In several cases where the patient had laboured under a fever, which in its height had no apyrexia, or only a slight remission, we have observed that after the most violent symptoms had been reduced, or in other words, that when the system had been enabled to rid itself in a measure of the remote cause and its consequent excitement, thereby remaining less affected by its action, that then the small portion of the morbific cause retained was only capable of producing a paroxysm every alternate day. This was particularly striking in a few cases. On every third day there would come on, about noon, an accession of headache, lassitude, and slight fever, after a little shivering or perhaps only a coldness of the extremities. In one case when this took place, the patient, in the first stages of the disease, had for three days a scarcely perceptible remission.

A case of a more malignant character which occurred in Banker-street, was in the first instance a pure remittent. In the course of a few days it became one of the strongest marked cases of typhus. Here the exciting causes, which in a less degree would have probably produced an intermittent, existing in the most concentrated form, gave rise to a remittent, but the patient being still exposed to the original malaria, united, at the same time, to the effluvium generated about and thrown off from the body, the remittent became of a more malignant character, and assumed the form of typhus.

The combination of symptoms and disposition to pass and repass from an intermittent to a remittent, could not escape the notice of Cullen; hence he only distinguishes them as intermittents with *apyrexy*, and intermittents with simple *remission;* and although he admits that these may become *continued*, or, being continued, may discover a tendency towards the two former, still he arranges them under different heads, making the specific characteristic of typhus not as particularly arising from a difference of symptoms, but from "the nature of the epidemic prevailing," and from its "being occasioned by human contagion." But we are not able to bring ourselves to a belief in a difference of cause of these two classes. We are aware that jail fevers may be adduced as proofs of a specific origin in typhus, differing from that of remittents and intermittents. A few remarks may be hazarded upon this subject. It is generally at the time when sporadic cases are met with in the city that these malignant prison fevers become prevalent. It is granted that the remote cause of the first is miasm, arising from terrestrial exhalations, produced by a peculiar combination of heat, moisture, &c. or the effect perhaps of meteoration. These exhalations dissipated through the atmosphere, are received into the system, and called into action by certain exciting causes. The inhabitants of a city are all, more or less, liable to suffer from an epidemic. The occupants of a prison, inspiring the same atmosphere, are no less liable to these effects ; but in them the danger is increased tenfold by the additional concentration of foul effluvia, arising from their being confined in crowded and ill ventilated apartments. Hence, while both suffer from the common miasm, the effect on the latter is heightened by the local causes immediately surrounding them. The seeds of the fever are the same in both ; it is only the nature of the soil and the compost (if the expression may be used) that differ.

It may be also doubted, whether this fever is capable of being propagated by personal contact. Typhus, like yellow fever, may be considered as merely infectious, that is, originating in certain districts, rendered impure by foul exhalations under a certain combination. That the latter is not personally contagious is, at this day, scarcely doubted, and if the same cool reasoning from facts and extended observation, were employed in the investigation of the former as has obtained in the latter, typhus would be divested of the terrors which are now attached to its name. The cases which we have seen adduced as proofs of the personal contagiousness of typhus, may be satisfactorily referred to a common predisposing cause. They have principally been nurses who have been breathed upon or exposed to the offensive odours of a sick room. But is it necessary to call this contagion ? They have already been exposed to the same remote causes as the patient who is lying sick, and the poison is only called into action by an exciting cause, which is thus presented to them. If this exciting cause were the only one producing typhus, then the position would be well established

—but is it not the case that other exciting causes are equally as powerful? Will not confinement, bad diet, and foul habitations, with heat, moisture, or any miasmatic cause, produce the same effect? Whence then is the evidence of contagion? If it needs more convincing proofs than those which have been produced, that typhus universally, or even generally originates in human effluvia, or propagates itself by personal contagion, we can easily be brought to believe in the identity of typhus, remittent, and intermittent fevers—seeing at the same time, that their origin may be referred to the same remote causes.

Treatment. The early and repeated use of emetics were found beneficial. Large quantities of bile were thus discharged, and the pains in the head and loins were much relieved. After the first emetic, free purging with senna and neutral salts, or scruple doses of calomel were directed. The matter thus discharged was tar-like and very offensive. This purging was afterwards kept up by a solution of the sulphate of soda with tartrite of antimony. This medicine likewise kept up a free perspiration. On the fourth or fifth day, if the pains in the head, back, and loins had subsided and there had been a natural sweat, the quinine with Dovers' powder reduced the quickness and irritability of the pulse and restored the balance of circulation, thereby rendering the skin moist and natural.

If a solution of the disease did not take place on the fourth or fifth day, and there was much pain about the epigastrium, recourse was had to blisters, and reliance was chiefly placed upon calomel administered in large and frequent doses. At this stage also, one, two, or three vomits, given on as many successive days, until the pain in the head was relieved, were never productive of any bad effects. The usual diaphoretics were used, but their effects did not seem productive of much good until the stools began to lose their offensive odour, and slimy, dark appearance. Bleeding at no stage of the disease was marked by any advantage. It would relieve the head at the time, but in two cases where we bled (and these we will observe exhibited the strongest marks of congestion) we think that the result was a more protracted, and less manageable fever. At all events, in every other case we succeeded in producing a more speedy recovery. The result of our observations is, that great visceral congestion was principally occurring, and that those remedies which unloaded the stomach and intestines, and kept up a free discharge of bile and accumulated abdominal secretions, generally were most strongly indicated. The torpidity of the bowels was a troublesome accompaniment of these disorders. To one woman we gave, in twenty-four hours, four doses of a scruple each of calomel, followed two hours after taking the last by eight ounces of the infusion of senna with an ounce of neutral salts; and in the evening of the same day, by a mixture containing of the ol. ricini ℥i. ol. croton gtt iij. and copaiba ʒi.—all of which produced, in the course of the night, only three stools. These resembled tar in consistence and colour, and it was only after keeping up the discharge for three days that the fever began to subside, or perspiration to appear.

During convalescence the bitter infusions seemed to answer every purpose, but when there was a little febrile action occurring and taking on an intermittent character, these did not appear as successful as quinine. We have seen salutary effects from this medicine when combined with Dovers' powder. The combination has produced free and refreshing perspiration, when, where the latter has been used alone, no advantage was perceived. This may be attributed to its giving tone to the stomach, and thereby enabling the Dovers' powder to exercise its due action upon this organ, and through it upon the brain and nervous and sanguiferous system.

Dysentery. The usual proportion of cases of this distressing complaint has been met with, accompanied by its general symptoms. From what we have observed, we are convinced that dysentery may, in a great majority of cases, where there is no organic lesion, be more easily managed than many diseases accompanied by less violent symptoms. If calomel were indicated in this disease alone, it would be considered as one of the most valuable remedial agents under the control of the physician. Other cathartics, with the host of astringents, carminatives, and opiates, only smother the flame, either to burst forth with tenfold violence, or silently but surely to waste the miserable patient to a living skeleton, and finally sink him in the grave. But in the use of this medicine an inert practice will avail but little. One half of the time may be saved in producing a cure, by exhibiting it largely and freely. In such doses it is not by its free purging that the sole benefit is received, but there is something in its action allied to a sedative effect. It is from a feeling of this kind that Dr. Johnson draws his eloquent description of its effects in his own case. And in this he is not singular, for in more than one instance where we have given scruple doses, it has been suspected that an opiate has been administered. In no other complaint have we seen, after the use of a single remedy, a change of feeling so sudden and agreeable.

Pursuing this plan, and recollecting at the same time that it is a "febris introversa," requiring a free and moist state of the skin, we have used the Dovers' powder with much benefit to that effect. Pursuing this plan, we have not lost a single patient, where there has not previously existed a disorganized liver or ulcerated intestines.

In infants the same principle has governed us, and the advantages of the practice can only be conceived of by those who have had an opportunity to compare it with the old practice of *chalk mixtures* and *mint water*, or the equally futile practice of purging with neutral salts until the nature of the discharges became altered—which is not very likely to happen before death prevents their further administration. The general plan of treatment has been to administer to children, from two to four grains of calomel, (according to the age of the child) for four successive hours. This generally produces three or four offensive discharges. An alleviation of the distress most frequently takes place during the first or second hour, and the child will fall asleep bathed in perspiration. In the course of five or six hours, castor oil is administered, and in a great proportion of cases no farther treatment is required, except perhaps, directing a little Dovers' powder in combination with magnesia and pulverized cinnamon. At the end of two or three days, although relief may have been afforded, still, if the stools are occasionally mucous and streaked with blood, recourse is again had to calomel. In the many adult and infantile cases in which we have given large quantities of calomel, we may safely say, that we have not seen a single instance where any evil effects have arisen from its use. Salivation is of rare occurrence, and in such a case depends upon idiosyncrasy more than upon quantity. Indeed, the worst case of the kind which has fallen under our observation was produced in a man of intemperate habits, by the usual prescription of calomel and jalap. In several instances there have occurred most severe prolapsus, the intestine presenting itself to some extent, accompanied by much heat and redness. Cold water injections have proved most decidedly serviceable. In the course of five or six hours and after the use of perhaps twice the number of injections, the intestine becomes pale and gives less pain to the little sufferer. A continuance of this application, with the addition of some vegetable astringent, soon produces a cure.

During the early part of this quarter, there were many inflammatory diseases met with. Pneumonias were not uncommon; but they were not of that acute character which always take place earlier in the season. These in almost all the cases were subdued by brisk and plentiful catharsis, antimonial solutions, and blisters. Rheumatic affections about the thorax were not unfrequently appearing—the same remedial means, with the exception of the blister, were resorted to successfully. Inflammatory disorders of the glands of the neck and fauces were not uncommon. They seldom required blisters and submitted readily to the senna infusion with antimony, preceded however by free emesis when deglutition or respiration was painful. Pertussis has been met with through the whole season. The worst cases have been those which were complicated with dysentery. Several of these we have seen; in such, by administering calomel as if they were simple cases of the latter, the cure of both has been coincident. Mutually becoming exciting causes to each other, they were therefore more obstinate in their recovery than if either disease had existed separately. Among the cases of scarlatina, several have suffered at the same time from pertussis. These have been generally of the most severe character,—but they have finally submitted to a strict antiphlogistic treatment.

ART. VII. *Case of Amputation of the Arm at the Shoulder Joint.* By JOHN WAGNER, Surgeon, Member of the Royal College of Surgeons, London, and Teacher of Anatomy, in Charleston, South-Carolina.

GUY, aged 45 years, the servant of Dr. James M'Donald of St. Andrew's parish, was bitten on Sunday, 28th of May, 1826, at his master's plantation, by the species of snake familiarly known as the water rattle. He was employed at the time in taking fish in shallow water, with what the negroes call a churn; and the snake, in springing from a log on which it lay, struck him in the fold of the elbow joint of the right superior extremity. He immediately requested a boy who was with him, to apply a ligature above and near the part wounded, which, upon his arrival at home, the superintendant of the plantation removed, and placed another around the limb, as high up as the axilla would allow, embracing a large portion of the deltoid muscle, above its insertion into the os brachii. During the night, this ligature caused intense pain, great anxiety, and some fever. It remained on from one o'clock, P. M. on Sunday, to twelve o'clock, M. on Monday, (twenty three hours) when it was removed by his master, who found him, at this time, suffering comparatively no pain, and little or no fever. The limb throughout was cold, devoid of sensibility, very much swollen, and the cuticle raised in vesicles over the whole surface; no pulsation could be felt at the wrist; nor was blood effused upon making free incisions with a scalpel into each of the fingers, nor into the veins at the fold of the elbow joint.

He was brought to town on Monday the 29th of May, from which period until the 8th of June, he suffered but slightly from constitutional irritation, and underwent various treatment by his master, with a view of restoring sensibility and circulation in the limb. I visited him upon that day, (8th of June) for the first time, and found the superior extremity of the right side in a state of complete mortification, from the fingers to the situation of the ligature, near the insertion of the deltoid muscle. No sensibility, no warmth, no pulsation in the arteries, either below or above the elbow joint, or even in the axilla could be detected: the deltoid and the muscles about the joint were in a state of considerable tumefaction: he was suffering no pain, had no fever, and as his constitution was good, I advised immediate amputation at the shoulder joint. To this he at once consented, and expressed his conviction of the inefficacy of removing the limb short of that part.

June 9th. (Twelve days after the accident.) The patient walked with the arm supported in a sling, this morning at an early hour, from his lodgings in Elliott-street, to my private hospital in Broad-street, a distance of several hundred yards, without fatigue. In the course of the morning, he took one drachm and a half of laudanum in a wine glassful of water, and at twelve o'clock submitted to the operation, which was performed in the following manner.

He was seated upon a bench of convenient height, and reclined a little to the left side, against the breast of one assistant, while the limb was supported by another, and separated about three inches from the trunk. My friend, Doctor Campbell, compressed the subclavian artery upon the first rib, by means of a key behind the clavicle; and standing myself at the side and somewhat behind the patient, I embraced within the grasp of the thumb and fingers of my left hand, the deltoid muscle, and with a single sweep, from heel to point of a long catling, I formed a flap by raising that muscle from its insertion into the os brachii, to its origin in the acromion process of the scapula, which being held back by an assistant, exposed the capsular ligament of the joint; then seizing the limb with my right hand, I passed the catling rapidly with my left, from point to heel. between the acromion and head of the os brachii, through the joint, and giving its edge a slanting direction towards the bone, formed a flap from below, and removed the limb. The axillary artery was pervious, and freely threw out blood when the pressure was removed behind the clavicle,—it was the only artery which required a ligature,—the muscles were of a pale colour, flaccid, and their vitality apparently diminished,—the flaps were, however, brought together by strips of adhesive plaster, and the dressing finished with a light compress and roller bandage. He bore the operation well,—lost little blood, and was put to bed after repeating the same dose of laudanum.

Six o'clock, P. M. Pulse 120—has no heat of skin or thirst, and expressed himself as being very comfortable;—there was oozing enough from the wound to soil and moisten all the dressings, but not alarming.

Saturday, six o'clock, A. M. Has passed a good night; had some sleep; and, with the single exception of increased frequency in the pulse, his constitution does not appear to suffer from the operation.

Six o'clock, P. M. Is still very comfortable; has no fever, and is doing well.

Sunday, ten o'clock, A. M. Had a good night; no fever; takes light nourishment, and is able to sit up in bed to have the wound dressed, which being exposed, presented the deltoid muscle *in a sloughing condition*, and *the wound*, generally, exhibiting *a very unfavourable aspect*. The adhesive strips were laid aside, and pledgets of charpie, moistened in the nitrous acid lotion,* were insinuated between the flaps, and the whole stump covered with the same. His bowels directed to be opened with castor oil; in all other respects is doing well.

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* ℞. Acid. Nit. dilut. gtt. L. aq. distill. lb. ij. M. ft. Lot.

This plan of treatment was continued three weeks, during which time, on the seventh day after the operation, the ligature came away, and the sloughs were all removed, and his general health was improving daily. The stump now presented an open, healthy, granulating wound, with a complete exposure of the glenoid cavity of the scapula, still covered with its cartilage, and a small portion of ligament attached to the acromion process,—the cut extremities of the nerves which formed the axillary plexus were observed, in particular, to throw out numerous granulations of a white colour. The wound was dressed from this time, (third week) simply with dry charpie; it healed altogether by granulation, and was completely cicatrized at the end of the third month. A small portion of the acromion process was thrown off by exfoliation, during the fifth week.

Remarks. In performing amputation at the shoulder, two advantages present themselves to the surgeon, as soon as the joint is opened, viz. the facility of comparing the extent of the two flaps, and adapting them to each other, by elevating the head of the bone above the acromion process; and the ease with which the axillary artery is commanded, by passing the thumb into the joint, and compressing that vessel between it and the fingers, in the axilla; indeed, I am half inclined to think, that an expert operator might form his flap of the deltoid muscle, open the joint, and dislocate the head of the bone so dexterously, as to require no other arrest to the circulation but what can be timely made upon this artery, in the proper stage of the operation, by a judicious assistant.

It is the general impression of those who are conversant with the subject in the country, that the bite of the water rattle snake is not destructive of life, and that the loss of this negro's arm may be wholly attributed to the officious application of the ligature, upon the limb, for the space of *twenty-three hours.* How long a ligature might be applied around a limb, so as to suspend the circulation, without destroying its vitality, is not in my power to state, but I may cite the case of a sailor, who came under the care of Dr. Campbell, in the Marine Hospital of this city, to show that a much less time may endanger the life of the part. This man's arm had been tied behind his back, by means of a cord, above the elbows, and in that condition was kept in the hold of the vessel *thirteen hours*. When he was admitted into the hospital, he had lost all sensibility, muscular power, and warmth in the limbs, and no pulsation could be felt at either wrist, so that there was, at first, serious apprehension of mortification; but by a judicious application of remedies, and especially friction in the course of the veins, he recovered the use of both arms in three months.

The weather was intensely hot upon the day of the operation and that which succeeded it, and it may be, that if the flaps had not been so nearly approximated, and the dressings made still lighter, the vitality in them might have been retained; but I am of opinion myself, that no precaution would have saved them; though in attempting the flap operation, I was justified, inasmuch as nature was allowed an opportunity to recover her powers, or to finish the work of separation precisely at the part where her necessities demanded it; and the result has proved the opinion correct.

Upon dissection, the muscles of the whole limb were found in a state of mortification; those of the arm, however, could all be recognised individually, though in a very altered condition. The brachial artery was pervious as low down as its division into ulnar and radial, both of which were much contracted, and closed an inch below their origin, but became pervious again, until lost in the mortified mass of the fore arm.

The acid lotion, besides its good effect of destroying fœtor, is certainly the most efficient means, and the quickest, of removing sloughs, which I have ever employed; and the dry charpie, the most simple, and at the same time, appropriate dressing, for a healthy granulating wound, keeping the secretion of good pus just at the point necessary to moisten the surface, and allow the part to heal.

It may be necessary to explain my reason for using the laudanum, with so liberal a hand, before and after the operation. The practice is not my own, but I am indebted for this, and many other suggestions, to my enlightened and very skilful friend in surgery, Dr. Benjamin B. Simons, whose success has proved its advantage, in lessening the constitutional irritability of the muscular fibre in the negro, who is so prone to tetanus, in this climate, after serious operations.

The absorption of cartilage, from the glenoid cavity of the joint, like the production of granulations from the axillary plexus of nerves, added great interest to the healing of this stump; for as soon as the sloughs were all removed, we had an opportunity of witnessing the beautiful process which nature instituted, in adapting herself to the exigencies which surrounded her. The part no longer useful as a joint, is made to exchange its smooth, white, dense, and elastic covering, for one of a different character; and while the absorbents remove the cartilage in patches, the bone is seen to throw out granulations, so nearly resembling those from muscle, that but for situation and somewhat paler colour, they could not be distinguished. At the end of six weeks this process was completed, and the whole surface of the wound was so uniformly covered with granulations, as not to present any difference whatever.

The contraction of the cicatrix is so great as to present the appearance of a very trifling wound.

REVIEW.

Art. I. *An Epitome of Chemical Philosophy; being an extended Syllabus of the Lectures on that subject, delivered at Dartmouth College; and intended as a text book for Students.* By James Freeman Dana, M.D. Concord, N. H. 1825. 8vo. pp. 231.

The rapid advances which have been made in chemistry during the present, and the latter part of the last century, have astonished its most sanguine cultivators. It is not more than fifty years since that scientific effort was chiefly directed to the investigation of subjects connected with natural philosophy, and it was supposed that these were thoroughly examined and satisfactorily explained. But its boundaries have been gradually encroached upon, and at the present day, it is confined to very narrow limits. Many of the theories of the philosophers have vanished before the scrutiny of the chemists, and the rigid investigations of the laboratory. Natural philosophy is content with a notice of the phenomena of bodies in mass; but chemistry descends to the constituent atoms of these bodies, and by determining *their* nature, enables us to study, with greater precision, the general laws by which they are influenced.

In noticing the importance of this vast and interesting science, we can scarcely pledge ourselves to assign its proper limits. If the different natural sciences have been correctly compared to a circle, chemistry is the centre from which light is radiated in all directions. We may scrutinize each degree of this circle, and we shall find it, in some way or other, influenced by this wonder working-science. The botanist cannot proceed a step in examining the phenomena of vegetable physiology, without a reference to the laws of chemistry;—the mineralogist can scarcely settle the name of a single mineral without the assistance of agents furnished in the laboratory;—and the theories of the geologist rest upon a very feeble foundation, if opposed to the doctrines which have been established by chemical investigations.

The arts also, have been signally improved by discoveries in chemistry. We shall not stop to particularize. In every workshop and every manufactory we see the practical application of principles which were developed in the laboratory of the chemist, and each successive improvement is but another proof of the benefits which this science confers upon the arts. Great discoveries have seldom been accidental. They have generally been the results of profound thought, intense study, and laborious investigation; and without the exercise of these, we may wait in vain for that perfection of art which our race is yet destined to witness.

The remarks which we have made upon the relations existing between chemistry, and the natural sciences and the arts, apply with equal force to medicine. Medicine is indeed one of the departments of natural science, as much superior in importance, as is man to the organized beings and inorganic masses by which he is surrounded. We need only refer to the daily contributions which chemistry is making to medicine, to prove its utility. The animal, the vegetable, and the mineral kingdoms are, by its means, laid open to the physician, and he selects from each the most important remedial agents. It is true that chemical theories have often been improperly employed in the explanation of physiological and pathological phenomena, but the same may also be said of all the other theories which have, age after age, appeared, and have again been discarded. But it cannot be denied that the operation of many medicines, and the performance of many functions, can only be explained upon principles purely chemical.

There is another consideration which places, in bold relief, the importance of chemistry to the physician. The science of juridical medicine or medical jurisprudence is, at the present day, receiving distinguished attention from enlightened physicians in all parts of the world, and no person should be allowed to enter upon the responsible duties of a practitioner, without some knowledge of its principles. Important cases may occur, in which the reputation of the profession is committed wholly to his keeping, and upon the manner in which the trust is discharged, will depend its elevation or debasement. How much the correct discharge of these duties depends upon accurate chemical knowledge, those who are in the least familiar with the subject, must be fully sensible. Is the physician called to a case in which poison is suspected to have been administered, for the purpose of wilful murder, how great is his embarrassment if ignorant of the means by which the substance is to be detected, and the guilt or innocence of the suspected individual established. And what remorse must he suffer, if through his ignorance and neglect the innocent should perish or the guilty escape?

But this is not all;—medicine is a liberal profession, and its votaries should be inducted into all the branches of learning which have the least bearing upon its principles or practice. Whatever has a tendency to sharpen the perceptions or expand the mind, should engage a portion of their attention. Were these the only claims which chemistry could urge, they would be sufficient to give it a place in the round of medical study.

Notwithstanding all this, it is somewhat surprising that so little importance should be attached to chemistry as a part of medical education, by some whose reputation in our profession gives their opinions an undue weight. This is an idea which originates either from a total ignorance of the science, or from an incorrect notion of the manner in which medical education should be conducted. Others affect to despise chemistry as well as the other branches of natural science, considering them beneath the notice of the practitioner. Such persons remind us of the ephemeras described by Franklin, who, from the short routine of their own existence, vainly imagined that the sun was but of a day, and as it faded from their view, its light was extinguished for ever.

It would be a waste of time to attempt the refutation of an opinion, which, in this enlightened age, can never gain currency. The good sense of the profession has settled the question, and we find that chemistry is regularly taught in all the medical schools, and that a knowledge of it is necessary to the attainment of professional honours or professional privileges.

Before noticing particularly the work whose title is placed at the head of this article, we propose to take a brief view of the origin and progress of chemistry in our own country; of what has here been done to extend its boundaries, or increase its usefulness. In the course of the sketch, we shall seldom have occasion to record brilliant discoveries, or very important series of investigations. Indeed, until the opening of the present century, chemistry was but imperfectly known, much less diligently cultivated. But though we cannot share the glory of having given birth to any of those who contributed so much to its advancement, during the last century, we have, within a few years, made several important additions to it; and perhaps at the present day, there is no country in which chemical knowledge is more extensively diffused than in our own.

Electricity, which is now allowed to be the most powerful of all known chemical agents, owes its elucidation to one of those individuals who have been the wonder and admiration of the world. Franklin, an American by birth, of obscure origin, by the native vigour of his intellect, successfully combatted the depressing effects of poverty and misfortune, and forced his way to an elevated station among the sages and philosophers of modern times. In contemplating his character, we are at a loss whether most to admire, his great exertions to meliorate the condition of mankind, or his ardour in the pursuit of philosophic truth.—And in those splendid experiments which have given him the greatest celebrity, both these objects were happily combined.

Franklin was born at Boston in the year 1706, and he early imbibed a taste for philosophic investigations,—a taste which he cultivated even amidst the cares of a laborious mechanical employment. At the time he commenced his career, Natural Philosophy was the engrossing object of attention among the scientific men of the day. Chemistry was as yet scarcely freed from the dross of alchemy, and was considered to be a pursuit inferiòr in importance and in interest. Among other subjects, that of electricity became, at the period just mentioned, a favourite of the European philosophers; and for the purpose of extending their inquiries, instruments were sent to Franklin, who had previously visited England, and was then residing at Philadelphia. He immediately devoted himself to its investigation, and the result was, the correction of many errors which had been entertained concerning its nature, and the complete demonstration of the identity of electricity and lightning. His great experiments in proof of this fact were performed in 1752, and were followed by results which have been of the greatest benefit to mankind. So thoroughly did he investigate this subject, that although seventy years have elapsed, no material fact has been added, nor have the opinions which he advanced undergone the least alteration. It is true that new sources of this powerful agent have been detected, as well as new modifications of its influence, but these discoveries have not in any way lessened the value of those for which we are indebted to Franklin.

In assigning to the discoveries of Franklin their proper degree of importance in the influence which they exerted upon the science of chemistry, we may remark, that it was probably owing, in a great measure, to them, that the immense power of electricity, as a chemical agent, came to be properly understood.

The period at which the splendid experiments just noticed were so successfully performed, was one of no peculiar interest to the chemical historian. The science, indeed, since the commencement of the century, began to be applied to the arts, and was directed to the investigation of nature,—the former receiving new impulses,—the latter, developing new beauties; but at this precise time its horizon was overshadowed with darkness, the precursor of the glorious day which was about to arise. There soon appeared on the records of chemistry the names of a Black, a Priestley, and a Lavosier, from whom it received the highest degrees of elucidation, and to whom we are indebted for many of the great practical results which the science has unfolded. The former of these distinguished philosophers was appointed to the chemical chair of the university of Edinburgh, in the year 1766, after having satisfied himself by experiments of the correctness of his opinions upon the subject of heat. The talents and industry of Dr. Black were such as greatly increased his own reputation, and the popularity and importance of the science. " His discourse," says his biographer, " was so plain and perspicuous, his illustrations by experiment so apposite, that his sentiments on any subject never could be mistaken; and his instructions were so clear of all hypothesis or conjecture, that the hearer rested on his conclusions with a confidence scarcely exceeded in matters of his own experience."

We have introduced the name of this celebrated chemist because it was the good fortune of our countryman Rush to attend his instructions, during the early part of his career, at Edinburgh. Imbibing a taste for the science which was so ably taught, and which opened such a wide field to the philosophic mind, Rush devoted himself, with great ardour, to its cultivation; and on his return from Europe, was appointed professor of chemistry in the Philadelphia medical school. During his continuance in this office, he published some chemical papers, which evinced an accurate acquaintance with the science as it was then understood. But he became extensively engaged in the practice of medicine, and but little leisure was left him for the prosecution of his favourite pursuit. He was soon transferred to another chair, by which chemistry sustained no common loss. This department was successively filled by Drs. Wistar, Hutchinson, and Carsin ; the last of whom died shortly after his appointment in 1793.

During the time these events transpired, the most important additions were made to chemistry in England and France, and which effected an almost entire revolution in the science. It may indeed be considered as one of the most splendid and remarkable epochs of its history; " adorned by discoveries which have been rarely equalled, either in number or importance, and ushered in by a series of sterling facts and memorable investigations." On the list of contributors to these we find the names of Priestley, Scheele, Cavendish, and Lavosier. The former of these is, in some measure, connected with the history of chemistry in our country. This highly-gifted individual, possessing an almost incredible versatility of talent, became attached to chemistry in 1768, and made many valuable contributions to it, between that time and 1772. It was not, however, until two years after the latter date that he made those discoveries which place him first in the foremost rank of chemical philosophers.

The first of August, 1774, has been called the birthday of pneumatic chemistry,—for it was upon that day that Dr. Priestly discovered oxygen gas, or, as he then called it, dephlogisticated air. This was succeeded by many other discoveries, which it is not necessary for us to enumerate. It is sufficient to observe, that Dr. Priestley's additions to the science have not been exceeded, either in number or importance, by those of any individual before or since his time.

Dr. Priestley was a politician and divine, as well as a chemist; and in each capacity, he pursued a course so manly, and evinced an industry so untiring, as to have astonished his warmest admirers. But the religious and political tenets which he advocated, rendered him unpopular in his own country, and obliged him to seek a refuge where freedom of opinion on every subject is tolerated. Driven by popular bigotry exciting acts of violence, successively from Birmingham and Hackney, he abandoned, for ever, the soil which proved thus ungrateful to one of its most illustrious benefactors. Like Aristides, he was forced into exile, while few of his persecutors could say what fault he had committed. It is not our intention to give an opinion upon his metaphysical, moral, or political publications; but whatever may be their defects, we shall stand forth for freedom of inquiry upon these as upon all other subjects. And whenever, by popular excitement or otherwise, this shall be opposed, a death-blow is aimed at civil liberty, and an impassable barrier is raised to the progress of improvement and discovery.

Dr. Priestley arrived at Philadelphia in 1794, and after remaining a short time in that city, then the literary emporium of the United States, took up his residence at Northumberland in Pennsylvania. Amidst all his reverses, he still continued attached to a science whose advancement he had greatly promoted. By unremitting exertion he procured, in a short time, at his residence, a library and chemical laboratory, and once more commenced, as it were, his chemical investigations. He had ever been warmly attached to the unintelligible doctrine of phlogiston, adopting it with all its absurdities and incongruities, and during his residence in this country he published a tract in its defence. This tract, besides the matter which it contains upon the phlogistic theory, is full of interesting particulars with regard to his previous discoveries.

The arrival in our country of such an individual as Dr. Priestley, was calculated to produce a great effect in creating a taste for chemical science. His gigantic mind, his great reputation, and the vast discoveries which he had made, secured to it a degree of respect and attention, which, but for him, would not have been effected in many succeeding years. Some of those who have grown grey in the cause of chemistry on this, as well as on the other side of the Atlantic, received their first lessons of instruction from this able master.

It has already been remarked, that the chair of chemistry in the Philadelphia school was vacated by the death of Dr. Carsin in 1793. Dr. Priestley, who arrived the ensuing spring, was appointed his successor, but having determined not to accept any public office, he declined the appointment; in consequence of which, Dr. Woodhouse was elected to this chair, which he continued to occupy until 1809.

In 1768, a few years after the organization of the medical school at Philadelphia, a similar institution was established at New-York, under the charter of King's College, and embraced, among other professorships, that of chemistry. And ever since that time it has formed a distinct branch of education. These two institutions, together with a similar one formed at Cambridge in 1782, are, it is believed, the only ones in which this was taught until the opening of the present century.

With medical men chemistry has ever been a primary object of attention, and hence, even at this early date, our medical schools were supplied with individuals competent to teach it. But it was thought to belong, exclusively, to our profession, and no importance was attached to it by those who intended to engage in other pursuits. Accordingly we find that in our most celebrated colleges of arts, it was not included among the regular branches of study. In these, natural philosophy every where maintained a place, and was considered of equal importance with the classical departments. But the sciences are subject to vicissitudes as well as countries and individuals,—and each have their days of prosperity and adversity. Thus, that which during the last century claimed the highest regard, has dwindled down, and is destined soon to give entire place to another and more engrossing subject. The sciences are also, in a measure, under the control of fashion,—that which one year is the favourite, may, before another, have sunk into neglect.

Most of the causes above enumerated, have conspired to produce that great change in the opinions of our citizens with regard to the objects and importance of chemistry, and have caused its introduction as a prominent department into all our seminaries, whether literary or scientific. But this was, perhaps, chiefly effected by the vast contributions which it was continually making to the arts, and the vast inroads which it was making upon the other departments of science.

Nor is this all: the scientific independence of our country is of recent date, and until that event took place, our scanty pittance was wholly supplied by foreign bounty. Our teachers must, forsooth, be sent abroad, so that by the operation of some *predisposing agency*, they might be better enabled to become great men at home. Those of us who recollect how mean an opinion was formerly entertained by some foreigners of the genius of our citizens, need not be surprised that it was more or less adopted by those who repaired to them for instruction. Besides, we are among the number of those who believe that an important science, like that of chemistry, cannot be acquired in the course of a few months, however great the advantages or abilities of the individual. It is true. a knowledge of its elements may be obtained, but years of unceasing study are necessary before we can become masters of it.

We do not hesitate to assert, that the consequence which was formerly attached to the mere name of a foreign education had the effect of retarding our advancement in chemistry, as indeed in all the other departments of science. It deterred those who had not the pecuniary means adequate to this object from pursuing it; and thus its interests were confided to the keeping of a few individuals, who perhaps did not possess the talent or the industry to extend its boundaries, and to enlarge its sphere of usefulness. Fortunately, however, this illusion is rapidly passing away, and we already begin to feel the salutary influence of the change. Several interesting improvements have already been suggested by our native chemists, and a knowledge of the science is becoming very widely diffused. But our present limits forbid our noticing these in detail, and we shall therefore proceed to make a few remarks upon the publications in relation to this subject which have issued from the American press, and which have contributed in an eminent degree to the advancement of the science under review.

These publications may be divided into two classes. 1st. Original remarks and the notice of American discoveries in the different scientific journals of our country; 2nd. Text books, elementary treatises, and reprints of many elaborate foreign works. Of the former, the most important are contained in "The Medical Museum," edited by Dr. Redman Coxe, of Philadelphia; "The Emporium of Arts and Sciences," edited by Dr. Thomas Cooper, and "The American Journal of Science and the Arts," by Professor Silliman. In each of these will be found contributions from our chemists, although some are also to be met with in our other medical and scientific periodicals.

Our object, however, is to speak more particularly of the works on Chemistry which have appeared. These consist chiefly of text or class books, and of American editions of the more extensive foreign systems. Among the first reprints of foreign works was, the System of Dr. Henry, which was edited by Professor Silliman, and which has passed through several editions in this country, the late ones containing the valuable notes and additions of Dr. Hare. This deservedly popular work, although not so systematic or elaborate as some others, with the additions recently made to it, holds a distinguished rank among the numerous publications of this kind. In speaking of the first American editor of this work, we cannot omit the opportunity of bearing our testimony to the great services which he has rendered, not only to chemistry, but to the whole circle of natural science in this country. In the publication before mentioned, and the work to which he has more recently devoted his attention, he has contributed essentially to the advancement of our reputation, and to the developement of native talent.

More recently, the excellent theoretical and practical chemistry of Mr. Accum has been sent forth in an American dress, under the direction of Dr. Thomas Cooper, who has also edited the more learned and elaborate work of Dr. Thomson. Accum is, in our opinion, well adapted to the purposes of the laboratory, and was, at the time of its publication, one of the best practical treatises extant. Its avowed object is, the instruction of such as are actually unacquainted with chemical science; and the method of treating the subjects connected with it is, perhaps, more satisfactory than that of any other elementary work which has appeared. In the practical part Mr. Accum excels: many operations are greatly facilitated,—a variety of new and interesting experiments introduced,—and all explained and described with minuteness and perspicuity. But though this work combines so many excellences, the recent improvements in chemistry render it at the present time less useful than many others. It is built upon the doctrine which prevailed previous to the discovery of the metallic bases of the alkalies and earths, and hence is apt to lead the modern student into error. On this account, it is consulted with advantage rather by such as have made some progress in the science, than by the novice.

The elaborate system of Dr. Thomson has also been reprinted in this country,—a sufficient evidence, in itself, of the increasing attention to chemistry. This is perhaps the most extensive work upon this subject which has ever appeared, and of all the foreign systems, has obtained the greatest share of public approbation, not only in England, but on the continent. No work in any language can compare with it, as an excellent summary of chemical facts and doctrines. These are so delivered as to form a proper compendium of the science to be put at once in the hands of a student, ignorant of the elements of chemistry; and they are, moreover, very extensively applied to the useful purposes of medicine, the arts, and manufactures.

Thomson's system possesses a value to the chemical student which, in our opinion, does not belong to that of any other author. And this is, that he can find in it a complete history of any substance, and when different opinions have been entertained concerning it, these are briefly detailed, with constant reference to those works in which they are more fully discussed. For a thorough and satisfactory examination of any chemical subject, Dr. Thomson's work can be consulted with better prospect of success, than any other now in print. Some objections, however, may be made to its arrangement, but these are of minor importance when compared with its many excellences.

Of the works on chemistry which have recently passed through our press, the Manual of Mr. Brande appears to have received the highest degree of approbation. It is, undoubtedly, the best work of the kind which we at present possess, whether we consider it in a scientific or a practical point of view. Containing the latest improvements, it presents a correct history of the present state of the science. To the medical student it is particularly valuable, as it contains formulæ for the preparation of those compounds which are employed in the treatment of diseases. The rationale of the different changes which take place during the action of chemical agents, is, moreover, in every case given in a clear and satisfactory manner, and in accordance with the most approved doctrines of the day. We fancy, however, that Mr. Brande will feel himself under no great obligations to the American editor for this *professed* reprint of his work. A comparison of the English and American editions will sufficiently show the alterations which have been made in the latter, and the unwarrantable liberties which have been taken with the original. This is in our opinion deserving of censure. If a book is the property of its author, we conceive that no individual has the right of mutilating or defacing it, without the consent of the party concerned. Common courtesy should forbid,—common sense should discountenance it. No one can object to an editor's making such additions by note, comment, or otherwise, if the integrity of the original is preserved; but when a language is put into an author's mouth which he never held,—when his work is curtailed here and there,—and still sent forth under the sanction of his name, it cannot be viewed in any other light than as an insult to him, and a fraud upon the public. It is to be regretted that several other works have received the same treatment in this country with that just noticed. This practice cannot be too highly reprobated; it arises either from an overweening desire to appear in print, or from what is more censurable, the wish to reap pecuniary profit from the talent and industry of others.

But we owe an apology to the author of the work whose title is prefixed to this article, for having so long deferred his introduction to our readers. The "Epitome of Chemical Philosophy," by Professor Dana, is one of several recent publications, which are professedly American, and which are intended as text books or compends for the lecture room. Most of these are valuable on some accounts, but there is none deserving of that unqualified commendation which is due to the one just noticed.

The author of the Epitome has been long and advantageously known to the scientific world for his valuable contributions in chemistry, published from time to time in the American Journal of Science;—and these, together with a knowledge of his experience as a public teacher, greatly raised our expectations when the present publication was announced; and we have no hesitation in asserting, that our high expectations have been fully realized. It appears to be exactly such a work as is wanted to fill up a niche which has not been heretofore occupied by any other, and is a valuable gift to those who are engaged in chemical pursuits. In point of extent, it holds an intermediate place between the voluminous works before mentioned and the smaller class books; though it combines in a great degree the advantages of both,—containing within a convenient compass every important chemical principle.

The design and scope of this work are thus stated by the author, in the advertisement prefixed to it.

"The object proposed in this publication is, to comprise the principal facts and doctrines of chemistry, in a condensed form, adapted to the use of those who wish to acquire a knowledge of the philosophy of the science, without entering into the details of laboratory practice, or being encumbered with the minutiæ of processes, and descriptions of substances, which are interesting only to the professed practical and operative chemist; and thus to furnish a work which should be useful as a Text Book of the Science, as it is usually taught in our academies and colleges."

"A brief description has been given of all the undecompounded bodies, and of their most interesting and useful compounds; among the latter, those have been selected, which are important in the arts, or which are employed in the laboratory as a source of other curious or useful chemical preparations."

We have examined this compend with considerable care, under the conviction that a convenient text book, properly compiled from the mass of materials which have accumulated, was a desideratum both with teachers and students of chemistry. So far as we are capable of judging, Dr. Dana has succeeded in effecting this valuable object, and we doubt not that his labours will be justly appreciated, and his Epitome take its place in our colleges and academies.

The arrangement of subjects treated of in this work is indicious; and this it is well known, is of the last importance in facilitating the study of any science. The general chemical agents are first noticed and illustrated in a concise manner; of these, electro-magnetism appears to have received much attention from the author:—next we have the acidifying and acidifyable substances, and under each, its combination with those previously described;—to these succeed the metals and the compounds which they form with the foregoing bodies. The only exception to the above order is in the case of water, which is treated of before the simple supporters. The following reason is assigned by the author for this deviation.

"Water, a substance universally diffused, and obvious to several of the senses, has been selected as a subject better adapted to the first experimental examination by a novice, than oxygen gas, an invisible elastic fluid; and the analysis of water leads directly to the consideration of the properties of its constituents, oxygen and hydrogen, and of the properties of gaseous bodies in general."

Were it not for this explanation we should be disposed to find fault with the slightest departure from the strict scientific arrangement, founded on electrical arrangements; which is so perfect and so systematic, as to be admirably calculated to assist the memory of the student, and to keep constantly impressed upon it the chemical changes and combinations which are developed in the progress of his inquiries.

Another valuable feature of the Epitome is the copious references which it contains to original works and memoirs which have been consulted in its preparation. This has been done, "both with a view to acknowledge the sources of information, and to direct students to publications in which the subjects are more elaborately discussed." By this means the investigation of any particular topic is greatly facilitated and is not attended with that sacrifice of time which it would, perhaps, otherwise require.

Dr. Dana adopts. in their fullest extent, the theories of Davy and others with regard to chlorine, iodine, &c. and also upon the subject of combustion. In this, we think he has consulted the best interests of the science. These doctrines, now so generally received, have effected an almost entire revolution in chemical nomenclature, and have contributed greatly towards the present extended range and race of chemical inquiry. It is true, that some still cling with firmness to the old theories, and by a few of our instructors they are still publicly taught and stoutly maintained. But the only effect of this will be to retard the progress of the science in the particular sphere in which they move, and they will, after all, be obliged to abandon the ground, for the maintenance of which they have so manfully contended. Yet so it has ever been. Those who have become attached to particular tenets or doctrines, and have become strengthened in them by age, feel a great reluctance in renouncing them. This, however, is not the spirit of genuine philosophy. The sciences are ever progressive, and the doctrines which at one time are supported by facts then known, may by subsequent discoveries be rendered absurd. In chemistry, such have been the constant changes of opinion from the time that air and water were considered as elements, to the present day. What great revolutions will be effected by it during the present century, imagination can scarcely conceive! But if it is to fulfil its high destiny, its teachers and its cultivators should keep pace with the improvements which it is constantly receiving. Else we might as well take our station on the platform erected by Priestley, Lavosier, and Scheele, and continue for ever teaching the pure and unadulterated chemistry of the eighteenth century; —discarding the subsequent discoveries as unworthy of notice, and their discoverers as trespassers upon the ancient landmarks of the science.

The second part of the Epitome is devoted to the consideration of the chemistry of organic bodies, comprised under the vegetable and animal kingdoms. Under the former, the subjects treated of are—the vegeto-alkalies or vegetable salifiable bases,—the vegetable acids,—other vegetable principles,—fermentation and its products. Under the latter, the blood and its constituents,—the soft parts of animals,—the hard parts of animals,—the secretions,—the excretions,—the chemical changes produced by the functions of animals,—putrefaction and morbid products. Each of these are discussed in accordance with the plan pursued in the first part. As very few of the products of organic bodies can be formed by the artificial processes of the laboratory, and are not considered of much interest, they are seldom dwelt upon in courses of chemical instruction. To the medical student, however, they are of great importance, and we are happy to find that the author, both previously and in the present work, has devoted some time to their investigation.

We have not time to notice particular parts of the work under review;—neither is this necessary, for it can only be judged of by being examined in detail. We do not hesitate, however, to give our testimony in its favour as a valuable and comprehensive epitome of chemical philosophy; and we recommend it to all those who are pursuing the science, not fearing the result of a rigid scrutiny of the opinion which we have advanced concerning it. As it is probable that a second edition of this work will soon be required, we would suggest to the author that its present form and size be retained as nearly as practicable, and that the additions should consist chiefly of references. It is too common for works in passing through new editions, to grow in size, until they finally become so voluminous as to defeat totally the purpose for which they were intended. By this means, also, the previous editions are rendered, in a measure, valueless—a circumstance frequently vexatious to the purchaser. But these considerations should not deter the author from making such additions or alterations as the improvements in the science demand.

Dr. Dana has recently been appointed Professor of Chemistry in the University of New-York, and this text book will be peculiarly advantageous to those who may attend his instructions. We are sanguine in the belief, that in the school to which he is attached the science will receive a new impetus, and that it will now be elevated to its proper rank among the departments of medical education.

In the course of our remarks we have adverted to some of the causes which have retarded the progress of chemistry in our country. We shall notice once more before we close, and it must be evident to those who are in the least degree familiar with the science. This is, the expense of procuring apparatus. We know that some of the experiments can be performed without a very heavy expenditure, and that the ingenious chemist will devise economical methods of exhibiting many others ;—but there are still many important chemical principles which cannot be illustrated without an expense too great for many of our public institutions, much less for private individuals. This is more particularly applicable in those cases in which series of investigations and experiments are to be conducted, to ascertain the nature of certain bodies, whether simple or compound. We might refer to the powerful voltaic instruments by which the greatest discoveries of the present century have been made, and to several others entirely beyond the reach of limited means.

In cases like the above, it is difficult to prescribe an efficacious remedy ;—we would, however, respectfully suggest to the constituted authorities of our State, that for the purpose of extending the knowledge of this useful science, a small portion of the school fund should be appropriated to the purchase of chemical books and apparatus, to be distributed among the different districts ; and that to each of our literary and medical institutions, a certain amount should be appropriated for the express purpose of extending their laboratories ; thus affording them a better opportunity of cultivating the science, and of extending its applications to the purposes of life. Let New-York, celebrated as she has become for those proud monuments of art which she has already erected, take the lead in a work which will equally redound to her honour and prosperity. Who knows but she may yet give birth to a Black, a Priestley, a Lavosier, or a Davy ? Who can tell but she is destined to awaken the energies, and excite the ardour of that master-spirit which is yet to burst upon the world,—the NEWTON of CHEMISTRY ?

Art. II. *Medical and Physical Memoirs.* By Charles Caldwell, M. D. Professor of the Institutes of Medicine and Clinical Practice in Transylvania University. Lexington, Kentucky, 8vo. pp. 254.

This is a pamphlet containing three essays, or *memoirs;* the first treating of religion, the second of yellow fever, and the third of the analogies of disease. These, it will be readily conceded, are important and difficult subjects; but it may well be questioned, whether they will come recommended to the medical reader by proportionate claims, either of novelty or of interest. In his choice of religion as a subject connected with medical disquisition, Dr. Caldwell has been particularly unfortunate. Religion is a theme which a medical author cannot approach but with extreme caution; and when there are so many important investigations connected with his own science, all of which present the most ample scope for discovery, research, and ingenuity, it is the more especially to be regretted that he should not confine himself to the immediate study of his profession. When, however, in the faithful discharge of his official duties, a medical lecturer or journalist finds himself called upon to treat of this most important of all interests, it should be his bounden duty, imposed upon him by the laws of good morals and the suggestions of good sense, to offer no violence to the feelings and opinions of the community in which he resides, but to inculcate the most implicit respect for religion in general, and a due observance of all laws calculated to promote and diffuse religious knowledge and practices among mankind. Nor is such a duty incompatible with the most unbounded freedom of opinion, nor is it in the least calculated to fetter the march of intellect, or the developement of truth. *Ne sutor ultra crepidam.* A medical teacher or writer is not called upon to discuss metaphysics, or points of faith, or to disseminate his own particular creed *ex cathedra*, and every such deviation from the direct line of his already too extensive duties, must be regarded as an unwarrantable encroachment on the time and interests of his pupils, and if made with a view to distract their faith or weaken their attachment to the principles of their early education, as a culpable outrage upon the good faith which intrusts their opinions to his guidance. That Dr. Caldwell, holding the responsible situation of professor in one of our medical shools, and enjoying the reputation of a medical writer for nearly thirty years, should have so far forgotten himself as to enter the lists as a metaphysical champion, in favour of *natural* religion, and its superiority to revelation, is to be deeply lamented, partly on account of his own reputation, but more especially for the injury such pretended liberality of discussion is calculated to inflict on the minds of the pupils who resort to Transylvania University.

But we shall be told, that the essay to which we allude, is entitled, " A defence of the Medical Profession against the charge of *Irreligion* and *Infidelity*," &c. To this we shall only reply by asking, what defence can that be which assumes the position, that the neglect of religion by medical men is sufficiently excusable by their discharge of their ordinary engrossing duties, which engage them in active philanthropy, and which would exculpate all neglect of public worship by the broad assertion, that " every duty, if laudably performed, is an act of worship to the Most High" ?—Then let every labourer follow his occupation on the day set apart for worship, and in the words of Dr. Caldwell, " the harmony and welfare of society will be the issue !"

We do not feel inclined to extend these remarks ; but we cannot altogether pass over, without notice, the occasional magniloquence and verbosity of style in which Dr. C. has indulged on this, as on some former occasions, with all its profusion of meretricious ornament and pedantic quotation.

Memoir II. This is a dissertation written in answer to certain prize questions, proposed by his Grace the Duke of Holstein Oldenburg, respecting the " origin, contagion, and general philosophy of yellow fever, and the practicability of that disease prevailing in high northern latitudes ;" with thoughts on its prevention and treatment. The author never transmitted his essay to the designated tribunal, partly because he found some difficulty in sending it, and partly induced by what he considered "the disqualification of those who were to sit in judgment on it." The College of Physicians of Berlin is, according to Dr. Caldwell, an able, enlightened, and *very respectable* society; but possesses no experimental knowledge of yellow fever, and consists entirely of contagionists. Why then did Dr. C. write this essay? We have no other information on this head, than that "being withheld from the College of Berlin, it awaits the judgment of an enlightened public."

Now the public, i.e. the physicans of the United States, have been so long in possession of the opinions of Dr. C. in relation to yellow fever, that we very much question the propriety of a reference to their decision, in this *dernier resort*. We shall, however, briefly go over the points discussed, because the long experience of Dr. C. entitles his opinion of the disease to some regard.

To the *first* question, "What are the causes of yellow fever in tropical climates," our author says, "the correct reply, expressed succinctly and without detail, would be, that yellow fever is produced by a *malaria*, or poisonous exhalation, arising from the decomposition and recomposition of the matter of organic substances."*

The *second* question refers to the similarity of the yellow fever of the South of Europe and of the United States, to that of the tropical causes. Dr. Caldwell replies in the affirmative, and enters into some interesting detail to strengthen his assertion.

The *third* question is an highly interesting one: "Is yellow fever a specific disease, or only a grade of the intermitting and remitting fever, endemial in hot climates?" We are gratified to observe, that on this point the opinion which we have hitherto defended, of the specific distinction between yellow and bilious remittent fevers, is supported by the arguments and experienced views of Dr. Caldwell. We are the more pleased perhaps, because we have, in this instance, been thought to maintain a doctrine at variance with non-contagion, simply because many non-contagionists believed in the identity of the two diseases. We shall here offer an extract from our author, in illustration of his views.

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* Page 87.

" Without pretending to any knowledge of the real nature of that substance, let us, for the sake of illustration, suppose it to be composed of oxygen, hydrogen, and nitrogen, or any two of these ingredients.

" It is a principle in chemistry, that, in the formation of compound bodies, a greater or less proportion of any of the constituent parts, entering into the compound, or those parts uniting, perhaps, with each other more or less perfectly, produces, in the result, a material difference. In illustration and proof of this, a number of pertinent examples may be adduced.

" Carbonic oxid and carbonic acid, formed by different proportions, and probably different degrees of union, of the same elements, differ from each other exceedingly, both in their nature and their properties.

" The same is true of the phosphorous and the phosphoric acids, the sulphureous and the sulphuric acids, the arsenous and the arsenic acids, the several modifications of the muriatic acid, and, more especially, the various nitrous and nitric productions, arising from the union of oxygen and nitrogen. I might add, that by fermentation and distillation, carried on under different circumstances, compounds differing greatly from each other arise out of the same elementary ingredients.

" In the formation of these compounds, the process is probably more active and vigorous in one case than another, and the relative proportions of the component parts, as well as their degrees of union, different, the parts themselves being in substance the same. But be this as it may, in their nature, properties, and modes of action, the compounds thus formed out of the same ingredients, are widely different.

" In relation to the deleterious gas, resulting from the natural decomposition and recomposition of organic matter, the same thing may be true; and hence it may be productive of different diseases. The poison of YELLOW may bear to that of *intermitting* fever, the same relation that the strongest of the acidified compositions bears to the weakest.

" But, perhaps the most solid ground of belief, that the yellow and intermitting fevers do not arise from the *same* specific poison, differing only in *degrees of concentration*, is, *that they never, in the same place, prevail at the same time*. Did the causes producing them differ only in strength, as wine diluted with water differs from pure wine, the phenomena presented to us would be different. In that case, the miasmata, acting as from a center to a circumference, would produce, at and near to the source of exhalation, *yellow fever*, within limits more remote, *remitting fever*, while at points remoter still, *intermittents* would preval." pp. 110, 111.

The following argument too, strikes us as forcible—

> "Finally, it has been already observed, that the natives and acclimated inhabitants of intra-tropical regions enjoy an exemption from yellow fever. But, in relation to intermittents, they have no such immunity, being liable to *them*, as the inhabitants of other places. Did those two forms of fever arise from the same specific cause, it does not seem probable, that individuals proof against the poison in a *concentrated*, would be injured by it in a *diluted* condition." p. 113.

Question IV. Does it prevail as an epidemic in the low grounds of the seacoast only, leaving the elevated situations untouched? The reply is affirmative.

The fifth question is unimportant, the sixth relates to contagion—on which our author's views have long been known, and his arguments are copious.

Question VII. What degree of temperature is necessary to produce the disease, and render it epidemic, and to what degree of north latitude has it heretofore extended? To this the author replies by an extract from a work of his, published at Philadelphia in 1807, and to which he complains that no reference has ever been made. From this it appears, that unless the thermometer rise to 80° Fahr. and continue at that height forty days, no yellow fever need be apprehended. To the second branch of the question, our author replies, that the highest latitude to which yellow fever has been known to extend is 42° 22′ N.

The remaining three questions are dependent upon the former, and relate to contingencies of police, quarantine, &c.

The memoir is closed with some observations on the pathology and general treatment of yellow fever. From this part of the work we shall make a single extract.

> "The *immediate seat* of that disease is the internal coat of the stomach, the local affection extending, at times, to the duodenum, and perhaps further. But its foundation is laid in an *extensive congestion* of the *abdominal viscera*. From this congestion, not, perhaps, an organ within the range of

the portal circle is entirely exempt. In different cases the liver has been found engorged in different degrees; at times but very slightly. When that organ has been discovered to be least affected, the congestion in some of the other abdominal viscera, particularly the stomach, has been the deeper.

"The state of congestion generally, is also exceedingly different in different cases of the disease. It is *excitive, inflammatory, or of a degree, so high as to prostrate the system, and take from it entirely the power of reaction.*

"As in all other complaints, congestion here is the product of antecedent *irritation*. That irritation, again, is but another name for a deleterious impression, effected through the property of *irritability*, by means of a specific aerial poison.

"If, then, yellow fever consist in abdominal *congestion*, inflammatory or otherwise, the curative indication is to remove it, and equalize the broken circulation and excitement. Internal congestion is accompanied by an external deficiency of blood. To carry this indication into effect, different means must be employed, according as the congestion is more or less intense. With this intensity correspond the violence and danger of the complaint.

"The modes of removing congestion are two, *depletion* and *revulsion*. Depletion is effected in two ways, *venesection* and *secretion*. Revulsion is produced by *counter-irritation*. When the congestion is *internal*, the counter-irritation is excited on the skin. When *external*, it is often removed by irritation in the stomach, skilfully directed.

"Secretion, to be effectual, must be more or less general. But that form of secretion is most immediately useful, whose organ is nearest to the seat of congestion. In the observations about to be offered, on the treatment of the disease under consideration, the applicability of these remarks will be rendered apparent." pp. 153, 154.

Art. III. *Journal of the Philadelphia College of Pharmacy.* Nos. 1 and 2. 8vo. pp. 64. Philadelphia, 1825.

Accidental circumstances led a number of the druggists in the city of Philadelphia, in the year 1820, to associate for the purposes of mutual benefit. Out of this association, we are told, grew "the Philadelphia College of Pharmacy." It consisted, originally, of sixty-eight druggists and apothecaries, and received an act of incorporation in 1822. It is the first, and we believe, as yet, the only establishment of the kind in our country, and as such, constitutes an era in our medical history. The precise objects to which the labours of the association are directed, are announced in the introduction to the 1st No. of its Journal. They are, "the instruction in the school of pharmacy,—the examination and inspection of drugs,—the preservation of harmony and correct conduct among its members,—and the cultivation of pharmacy and a taste for science." To accomplish their objects more completely, the Journal under notice was projected. Two numbers have as yet only appeared, which we have been induced to notice, with the double view of laying some interesting selections from them before our readers, and of directing public attention to the necessity of a similar establishment in our own city.

On the preparation of Glauber's and Epsom Salt and Magnesia from Sea Water. By Daniel B. Smith.

This paper gives an account of the processes pursued at the large salt works in Massachusetts, at which all these salts are manufactured.

"The brine at these works is pumped into vats of the capacity of six hundred or a thousand hogsheads, where it is concentrated by evaporation in the sun to the strength of a saturated solution. It is then drawn off into a second vat, called the pickle vat, of about half the size of the first, in which it is cleared from impurities, and thence transferred to a third still smaller vat, in which the evaporation is finished and the common salt formed. When crystals of Epsom salt begin to deposite, the mother water is drawn off, and kept, under the name of Bitterns, for the Epsom and salt and magnesia works.

"The season for making salt is over by the end of October, and the large vat is then filled with brine, which the sun and high winds of the two succeeding months concentrate to the strength of pickle. This is drawn off into the pickle vat, is which it remains till spring, when it is transferred to the third vat and evaporated to obtain the common salt. During, however, the extreme cold weather, a chrystalline deposite is formed, consisting chiefly of sulphate of soda, which is taken out with iron rakes having strainers attached to them, and then purified for sale by recrystallization. The best formed crystals are sometimes dried and sold in their impure state.

"The bitterns consists chiefly of sulphate of magnesia and hydrochlorates of magnesia and lime, of which the latter two do not easily crystallize. It is evaporated slowly, and the Epsom salt may, with proper care and washing, be obtained very pure. When evaporated too hastily, it is mixed with hydrochlorate of magnesia, a very bitter and deliquescent salt.

"To obtain the magnesia the bitterns is diluted to a certain standard (upon the strength of which the degree of the firmness and compactness of the magnesia is said to depend) and mixed with a solution of pearl ash. The precipitate is repeatedly washed in water, which is at first hot and gradually cooled, till it comes off quite tasteless. The box in which it is washed is twenty-five feet in length by twenty feet in breadth, and three in depth, and has a strainer of canvass for a bottom. When sufficiently pure, the magnesia is allowed to thicken, and is then poured into square moulds placed on canvass strainers. When these are full, and the magnesia has obtained the proper consistence, the moulds are lifted off, and the next day the magnesia is removed into the drying oven, where it is kept for forty-eight hours, at a temperature of 190°, then taken out, scraped, and packed up for sale."

"In attempting to investigate the rationale of these processes, I shall assume as correct the experiments of Dr. Marcet, published in the Philosophical Transactions for 1819. This excellent chemist obtained from five hundred grains of sea water from the middle of the North Atlantic ocean, having the specific gravity of 1.02886 the following precipitates:

	grs.			grs.
Chloride of Silver,	42	equivalent to	Chlorine,	10.356
Phosphate of Magnesia,	2.7		Magnesia,	1.125
Sulphate of Barytes,	3.85		Sulphuric Acid,	1.305
Oxalate of Lime,	8		Lime,	.35
			Sodium,	6.037

"The state in which these elements exist in sea water is involved in much obscurity. According to the temperature employed in the evaporation, we procure from it either sulphate of lime, sulphate of magnesia, or sulphate of soda. It is therefore evident that a change of temperature is sufficient to disarrange the combinations that usually obtain."

"If we suppose the sulphuric acid to exist in combination with soda, the following may be considered as the composition of 1000 grains of sea water."

Sulphate of Soda,	4.698 grs.
Hydrochlorate of Magnesia,	6.4125
————————Lime,	1.625
Chloride of Sodium.	26.27

If it be combined with magnesia the following arrangement may be considered as obtaining:

Sulphate of Magnesia,	3.915 grs.
Hydrochlorate of do.	2.69325
————————Lime,	1.625
Chloride of Sodium,	30.185.

"The latter formula agrees better than the former with the medium proportion of salt, (which is about three per cent.) in sea water. If sulphate of soda be the salt naturally in solution, I know of no law to determine the formation of sulphate of magnesia. If the latter salt be the one ready formed in sea water, the production of sulphate of soda during intense cold will be in agreement with two known laws. One of these is, that solutions of sulphate of magnesia and chloride of sodium decompose each other when exposed to a freezing temperature, as first remarked by Gren. The other is the very remarkable law of solubility of sulphate of soda. At 32° F. 5. 02 parts of the dry salt are soluble in 100 parts of water, and 50.65 parts at 102°; whereas the solubility of chloride of sodium is scarcely affected by the temperature. The pickle in which the Glauber's salt forms, is a nearly saturated solution of salt, and remains liquid at zero. At this temperature almost the whole of the sulphate of soda will crystallize. It is therefore probable, that the sulphuric acid exists in sea water in combination with magnesia."

"The formation of Glauber's salt cannot be advantageous to the manufacturer. It lessens the production of common salt about thirteen per cent.; and though the same quantity of magnesia can be obtained from the bitterns, it will not yield Epsom salt."

"It is much to be wished that accurate observations should be made on the spot, of the composition of the bitterns, and the various phenomena occurring at a salt works. Much advantage woald result to the manufacturer in point of economy, and new light be thrown upon an obscure and intricate subject."—pp 6-9

On Extract of Quinine. By John Farr.

This is an American preparation of the Quinine, and was first made by Dr. Farr, in 1823, a season in which intermittents and remittents prevailed very extensively in Philadelphia. It was suggested to him during the preparation of the Sulphate of Quinine. The following is the account which he gives of it.

"By adopting the methods laid down for the preparation of this article, I soon discovered, after separating two or three crops of crystals, much quinine still remained, in combination with resinous and colouring matter in the form of a thick dark brown liquid, but, in consequence of its viscidity, very difficult of separation.

"The idea suggested itself that this residuum might become an efficacious medicine in the form of an extract, (a form by no means objectionable when exhibited in pills,) which would be less expensive to the patient, and equally efficient by an increase of dose; an important desideratum in consequence of the extensive prevalence of the disease amongst the poorer class of citizens.

"I carefully reduced, by evaporation, some of this liquid to an extract, which I left with Mr. D. B. Smith for the purpose of trial by some of his medical friends. Dr. Emlen, being apprised of it, was the first who precribed it, and was pleased with its effects in doses of two grains each; he afterwards diminished the dose to one grain, but did not find it succeed; he accordingly reverted to the original quantity of two grains, and, with few exceptions, discovered the happiest effects from its exhibition, and, that it is in no respect inferior to sulphate of quinine.

" Drs. Parish and Wood were the next to make use of it in their practice, and found the results equally successful; afterwards it was prescribed by several other physicians, which occasioned a demand for the article equal to what we were able to furnish. It will be recollected that the extract could be obtained only in proportion to the quantity of sulphate of quinine prepared, and this proportion varied according to the quality of bark made use of.

" From the finest kinds of bark the extract resulting would be about as one to four; but from the more inferior kinds the proportion was larger. From that time to the present, the article has been prepared simply by the careful evaporation of the residuary liquor of the sulphate of quinine. From its diliquescent character, it is probable that the acid may exist in a little excess, which would thereby present the quinine contained in it, in the state of a super sulphate."—pp. 43—45.

On James' Fever Powders. By Dr SAMUEL JACKSON.

We shall quote this article entire, leaving our readers to judge of the accuracy of the writer's statement by their own experience.

" The fever powder of James, that gained so much reputation in England, was esteemed an active preparation. It was accused of producing, at times, very violent effects, and was even opposed, by some, as a dangerous medicine.

" Dr. George Pearson, who undertook to analyse this preparation, found it to consist of oxide antimony 57, phosphate of lime 43, =100. Antimony combines with oxygen in different proportions. Thenard makes four oxides, but it is generally, and, for pharmaceutic views, may always be regarded that there are only two: the per and the protoxide of antimony. The first consists of antimony 73⅓, oxygen, 26⅔, =100; or, 1 atom metal =44, 2 atoms oxygen =16, =60, weight of atom of peroxide. The last consists of antimony 84. 62, oxygen 15. 38, =100: or, 1 atom metal =44, 1 atom oxygen =8, =52, weight of atom of protoxide of antimony. Now, the first of these, or the peroxide, is perfectly inert, as has been frequently, demonstrated; on which account, the antimonium calcinatum, which is a peroxide, was omitted in the Pharmacopœia Londinensis of 1809. It is the protoxide and its combinations alone that possess active powers. Dr. Pearson, in his analysis, did not determine which of these oxides existed in the James' powders he examined, and, consequently, it was left by him very imperfect."

"It was from this analysis of Mr. Pearson that the formula for preparing the oxidum antimonii cum phosphate calcis of the Edinburgh, and pulvis antimonialis of the London and Dublin pharmacopœias, was adopted. It consists in heating sulphuret of antimony and hartshorn shavings, mixed together in a crucible, until vapours cease to arise. The remainder is then reduced to powder, and exposed to a white heat for two hours.

"This preparation has been so generally adopted in the place of James' powders, that, in this country, the last are rarely to be met with. It is evident, however, from the high temperature employed, that the antimony must be oxided, to a maximum, and that the product is the peroxide, and of course, wholly inert. That such is the fact has been demonstrated. Mr. Phillips mentions that, in consequence of Dr. Elliotson having exhibited one hundred grains pulvis antimonalis without effect, he examined two different parcels, and found, in each, the antimony was in the state of per oxide.

"Dr. Paris, in his Pharmacologia, asserts, "that experience has established the fact, that James' powder is less active than its imitation," and in a note to the article pulvis antimonialis, vol. ii. p. 277, line 2, in which he notices Mr. Phillips' observations, he remarks that "it will be difficult for the chemist to persuade the physician, that he can never have derived any benefit from the exhibition of antimonial powder.

"To ascertain whether the pulvis antimonialis would produce any well characterised operation on the system, I requested Dr. Whight, resident physician to the Alms House, to administer it in large doses. On the 12th, inst. it was given to a patient, whose stomach was in good condition, and who complained only of a slight pain in the hip, in the dose of ten grains; no effect resulting, in an hour fifteen grains more were given, and proving without any operation; in an hour twenty grains in addition were administered, making forty-five grains in three hours, without the slightest effect.

"To another individual, whose stomach and general health was equally favourable to test the powers of this preparation, ʒiss. were given at a dose. A slight evacuation, by stool, succeeded in some hours, but which cannot be said to have proceeded from the medicine; no nausea or other effect was produced.

"To another patient ʒii. were given every hour, until ʒvi. had been taken. No particular disturbance of any function was occasioned by it.

"The above experiments, corroborating the statement of Dr. Elliotson, and being in strict accordance with the chemical analysis, must place beyond all manner of doubt that the pulvis antimonialis, prepared according to the directions of the English colleges, is an inert and wholly useless preparation, which should be expunged from the lists of the pharmacopœia.

"Dissatisfied with the analysis of Mr. Pearson, other chemists undertook to determine the composition of James' fever powders with great accuracy. Mr. Phillips states that he found it to be a mixture of peroxide of antimony and phosphate of lime, in the following proportions; peroxide antimony 56, phosphate of lime 44, = 100.

M. Pulli, a chemist of Naples, also subjected James' powder to a very rigorous analysis, and obtained results somewhat different from those of Dr. Pearson, or of Mr. Phillips. The constituents, he ascertained, were, in thirty-eight grains: perox. antimon. gr. xiv., phosphate of lime gr. viii. Sulphas potassæ, gr. ix., potassa, containing protoxide. antimon. gr. vii.

"He proposes, in consequence, a new formula for its preparation. He directs sulphuret antimony two parts, phosphate lime, calcined one part, nitrate potash, four parts; powder and mix them together: put them into a covered crucible, and expose them to a strong heat.

"In this process the nitrate of potass and the nitric acid are decomposed. Part of the oxygen of the acid combines with the sulphur of the sulphuret and forms sulphuric acid, which unites with part of the potash to form sulphate of potash; the other portion of the potash, now free, acts on the antimony oxided to a minimum and retains it, while the larger portion of the antimony of the sulphuret is oxided to a maximum.

"M. Pulli asserts, that, on analysing the product of this process, he obtained the same results as from the analysis of James' powders. The quantity of protoxide is, however, so small, that no very decided operation can be expected from it.

"From all the observations and experiments that have been made, it is very evident that the James' powder, as well as its imitation, can be of very little utility, and that the same reasons that led the English colleges to discard the antimonium calcinatum, or diaphoretic antimony, once so famed for its usefulness in febrile diseases, apply equally to these preparations."—pp. 45—49.

On the Lytta Gigas. By Dr. Samuel Jackson.

This paper contains an account of a species of Cantharides, which was imported into Philadelphia, under the name of the East India flies. On trial at the Alms House, they were found to vesicate much sooner than the Spanish fly, and from their greater activity, only half the quantity was used in making the Emplastrum Cantharides.

"*Description.*—The colour is a deep azure or sea blue; all parts of the insect, head, elytra or wing cases, body, and legs, are of the same colour, with the exception of the under part of the chest, on which there is a brown spot. Its size is from three quarters to an inch in length, being nearly twice the size of the lytta vesicatoria, or cantharides. They have little or no odour."

"All of the species of the genus lytta are, I believe, endowed with vesicating properties. We have several that are natives, and which are found at times, in quantities sufficient to make their collection an object; such is, particularly, the lytta vitata, or the common potato fly. From some comparative experiments I made several years since, I found this species more powerful than the common run of the cantharides of the shops. Mr. Say discovered, in one of the expeditions under Major Long, a new species, which he has named Lytta Nuttale, after Mr. Nuttal, and which, he informed me, he ascertained to be very powerfully vesicating, and might be collected in considerable quantities."—pp. 51—52.

Remarks upon the Preparation of Black Drop, and the Acetic Tincture of Opium. By Thomas Evans.

Though somewhat long, we shall quote the whole of this interesting article.

"The Lancaster, or Foulke's black drop, has been esteemed superior to other preparations of opium, in consequence of its being less apt to produce constipation of the bowels, sickness of the stomach, or those distressing nervous affections which sometimes supervene on the use of the gum itself, or the common tinctures of it.

"Acetic preparations of opium have long been celebrated. As early as the time of Van Helmont, directions were given for preparing a tincture of opium with the juice of quinces; and the Anodynum specificum Paracelsi was compounded with the juice of sour oranges and quinces; and as these preparations were to be fermented, the product would be acetous acid. It is probable that the recipe for the modern black drop was taken from one of the above prescriptions. The preparation of this article was kept secret for many years, but the recipe having come into the possession of Dr. Armstrong, he very obligingly gave it publicity, and it is now copied into most of the pharmacopœias. Its active ingredients appear to be opium, acetat of morphium, and a small portion of the oil of nutmeg.

"The directions given for the preparation of the black drop, in Paris' Pharmacologia, Coxe's American Dispensatory, and the Pharmacopœia of the United States, are all substantially the same; and as we propose offering a few remarks upon the subject, we shall copy from the latter work It is as follows, viz.

" '*Vinegar of Opium, commonly called Black Drop.*

Take of Opium, half a pound,
Vinegar, three pints,
Nutmeg bruised, one ounce and a half,
Saffron, half an ounce;
Boil them to a *proper consistence;* then add,

Sugar, four ounces,
Yeast, one fluid ounce.

"Digest for seven weeks, then place in the open air, until it *becomes a syrup*; lastly, decant, *filter*, and bottle it up, adding *a little* sugar to each bottle.'

" The first inconsistency which presents itself in this recipe is the name given to the compound: 'Vinegar of Opium' should mean, simply, a solution of opium in vinegar; but the article ordered is a *compound syrup of opium*, with nutmeg and saffron; it is, therefore, evidently incorrect to call it the vinegar of opium.

" The direction to 'boil the ingredients to a *proper consistence*,' is entirely indefinite; and the strength of the black drop will necessarily vary, according as the ideas of operators may differ in regard to the *consistence* which *is proper*. One person may think it of 'a *proper consistence*,' when a fourth of the menstruum is evaporated; another not until one half of it is dissipated; and hence the proportion of opium, contained in any given quantity, will be subject to correspondent variation.

" After it is brought to 'a *proper consistence*,' we are told to 'digest for seven weeks, and then place in the open air *until it becomes a syrup*.' The digestion for seven weeks appears to be quite unnecessary. The proportion of opium to the vinegar is so great, that only a small part of it can be dissolved, and as vinegar is a ready solvent of opium, it would soon become saturated; all the purposes, therefore, of the tedious process of seven weeks' digestion would be fully accomplished by the previous boiling. As the oil of nutmeg is volatile, and will be easily evaporated, the process of boiling, and subsequent exposure to the air, must nearly or quite dissipate it, so that if any benefit is expected to result from its entering into the compound, this would probably be lost. It would seem more proper that the minute division of the particles of opium should be effected by trituration, instead of boiling, and the article thus made would be equally safe and certain in its strength, since the opium is principally held in suspension. 'Placing it in the open air *until it becomes a syrup*,' involves the same uncertainty as 'boiling to a *proper consistence*.' The term syrup is used to designate liquids which differ greatly in the degree of their fluidity from a thin liquid, to one little less dense than an extract, and consequently the strength of the black drop will be subject to variation, according to the ideas which the operator may entertain of the proper consistence of a syrup.

" Lastly, we are directed to 'decant, filter, and bottle it up, adding a little sugar to each bottle.' The same vagueness and uncertainty which mark the former part of the recipe are likewise evident here: it is astonishing that directions so indefinite and improper, for preparing an article powerful and even dangerous in its effects, should have been transcribed into professional works, without the smallest animadversion upon their incorrectness. What we are to understand by '*a little sugar*,' or of what capacity '*the bottles*' must be to which *that little* is to be added, we are not informed, both of which circumstances, it is evident, will affect the strength of the medicine. The article is already evaporated to the consistence of a syrup, consequently, any quantity of sugar, however '*little*,' which is added, will increase its bulk, and if the bottles in which it is contained be small, and 'a little sugar added to *each one*' as is directed, the relative quantity of opium will be materially diminished. We cannot see the propriety of adding any sugar, since the formula is already '*a syrup*.'

" The introduction of yeast into the compound appears also very unnecessary. Its use can only be, we apprehend, with a view of producing fermentation; but as the menstruum used is vinegar, the necessity for fermentation is done away.

" Paris' Pharmacologia and the American Dispensatory direct the acetic solution of opium to be 'boiled to a *proper thickness*;' and after adding 'a quarter of a pound of sugar and *two spoons-ful* of yeast, set the whole in a warm place near the fire for six or eight weeks, then place it in the open air *until it becomes a syrup*.' These directions are equally indefinite and improper with the former; in one respect they are more so, since they state the quantity of yeast at the uncertain measure of 'two spoons-ful,' leaving us to choose between large and small, table and teaspoons. It is not pretended that the strength of the preparation would be materially altered by the use of either of them, but it is certainly improper to give the direction for preparing so active and important a compound in such ambiguous terms. The American Pharmacopœia has amended this article by changing the measure to one fluid ounce.

" It will require but a moment's reflection to convince us that the practitioner of medicine can never know what quantity of opium he is giving, when he prescribes this inelegant, unscientific, and uncertain preparation. He may either give so much as to produce far greater effects than he anticipates, or while endeavouring to guard against this, he may find that the quantity ordered is inefficient. The danger of using the black drop is greatly increased by the fact, that a large portion of the opium which enters into its composition, is *undissolved* and merely held in suspension by the syrup. It will consequently subside towards the bottom of the vessel containing it, leaving the superior portions of less than ordinary strength, and as these are poured off, the remainder may contain *double or treble* the proper quantity of opium. It is true, the dispensatories direct the syrup to be '*filtered*,' but it is obvious that it would not pass through any filter, the pores of which were small enough to detain the minute portions of undissolved opium. The article when prepared according to the pharmacopœia, *always contains a considerable volume of suspended opium*.

" It needs no argument to show that the black drop should no longer be recognised as an official preparation. As the acetic compounds of opium are acknowledged to possess, in some cases, a decided advantage over all others, it seems desirable to substitute for the black drop a tincture, which shall possess those advantages without the objections to which that preparation is liable. Some years ago, Dr. Joseph Hartshorne directed the preparation of such a tincture, according to the following recipe, viz.:

" Turkey opium,	℥ii.
Strong vinegar,	℥ f. xii.
Alcohol,	℥ f. viii.

Triturate the opium with the vinegar; add the alcohol and digest with gentle heat for ten days; then filter through paper for use.

" This tincture has been extensively used in this city and other places, and is found to possess all the virtues of the black drop. Those who prefer the addition of the aromatics, may prepare it by putting in half an ounce of nutmeg, bruised, and one drachm of saffron.

" One fluid drachm of the simple tincture yields by evaporation, 3.5 grains of hard extract, of a dark brown or nearly black colour, shining fracture and extremely bitter taste. The common tincture of opium (laudanum) contains only 2.3 grains of extract to the fluid drachm; it follows that the acetic tincture contains 9.6 grains more of the extract, in every fluid ounce, than laudanum. Its strength, in proportion to the latter, is as fourteen to nine.

" The extract obtained by evaporating the acetic tincture, furnishes a very convenient mode for exhibiting the preparation in pills or powders. It is known by the name of acetated extract of opium, extractum opii acetatum.

" From several experiments, which I have made, it appears that the proportion of extract yielded by this tincture, is affected in some measure, by the strength of the vinegar. Acetous acid dissolves a larger portion of opium than either alcohol or water. Of sixty parts of opium which were digested for several days in pyroligneous acid, fifty were dissolved, and, after the solution had been filtered through paper, were obtained by evaporation, in the form of a shining dark brown extract. Sixty parts of opium treated in the same manner with alcohol and water, each yielded only about half the quantity of extract.

" As the vinegar of the shops is often impure and contains but a small portion of acetic acid, I would suggest the propriety of forming a menstruum with purified pyroligneous acid, water, and alcohol. I have accordingly prepared an acetated tincture of opium by the following recipe:

" Pure pyroligneous acid,	℥ f. v.
Water,	℥ f. vii.
Alcohol,	℥viii.
Turkey opium,	℥ii.

Mix the acid, water, and alcohol, and triturate the opium with the compound; digest with a gentle heat for ten days or two weeks, and filter through paper for use.

" The pyroligneous acid which I used was perfectly transparent and colourless, and contained about 30.5 per cent. of acetic acid, one hundred grains of it requiring 87.5 grains of crystallized sub-carbonat of soda to saturate it, which is about six times the quantity required by good vinegar.

" The tincture prepared by this recipe yields, by evaporation, thirty-two grains of hard extract of opium to the ounce; its strength, compared with laudanum, is about as sixteen is to nine.

" Where an aromatic tincture of opium is wanted, the following recipe will furnish an elegant preparation, viz.:

" Pure pyroligneous acid,	℥ f. v.
Water,	℥ f. vii.
Alcohol,	℥ f. viii.
Turkey opium,	℥ii.
Nutmeg, bruised,	℥ss.
Cardamom seeds, bruised,	ʒii.

Mix the acid, water, and alcohol, and triturate the opium with the liquid; add the nutmeg and cardamom; digest for two weeks, then filter through paper for use." pp. 53—60.

We cannot take leave of this publication without wishing it every possible encouragement. We also hope, that the laudable example set us in Philadelphia, in establishing a College of Pharmacy, may very speedily be followed in this city. It is a subject of deep interest to the profession, and we shall take occasion, ere long, to call attention to it somewhat more in detail.

QUARTERLY HISTORY

OF

IMPROVEMENTS IN MEDICINE AND SURGERY.

Foreign.

ANATOMY AND PHYSIOLOGY.

Case of Uterine Hemorrhage, successfully treated by the Operation of Transfusion. By C. Waller, Esq.—A great deal has been said about the *danger* of this operation, but we have no facts brought forward to prove it; whilst, on the contrary, the cases which have already occurred are sufficient to warrant an assertion that it, at any rate, is not necessarily attended with danger. But, like any other operation in surgery, it may be made a dangerous one in the hands of ignorance and inexperience; for, although it requires but a very moderate portion of skill, yet there are several *niceties* (if I may so express myself,) which are essentially necessary to be attended to, to ensure the success of the operation.

In the case which I am about to relate, the patient appeared to be as near death as it was possible for any one to be, without being actually dead.

The female was thirty-two years of age, of a very delicate and nervous habit, was exceedingly emaciated, and was so reduced by long-continued nausea and vomiting, that she had been for three weeks confined to her bed, and during the last ten days she could not even turn without assistance. I was summoned to her on the morning of the 24th April, and arrived at her house at a quarter before ten A. M., and was informed that she had experienced a few slight pains since three o'clock; that there had been a continual drain since that time, but latterly the discharge had increased: it had, in fact, run through the bed upon the floor. The patient was in a very alarming state; the pulse was only perceptible at intervals, and, when it was so, the beat was too indistinct to be accurately counted: it was, however, extremely rapid, about 140 in the minute. Both the upper and lower extremities were very cold, and she could scarcely answer any question that was put to her; her countenance exhibited that death-like appearance which it is impossible to describe, but which most of your readers must have witnessed in patients who are on the point of death. On examination, I found the hemorrhage profuse, the promontory of the sacrum rather advanced, and no part of the child below the brim of the pelvis; I therefore introduced the whole hand into the vagina, and ascertained the shoulder to be the presenting part. In such an alarming state of syncope did she appear, that I had my doubts whether the sudden emptying of the uterus would not destroy life. Finding, however, that the stimulus of the hand produced some slight uterine action, I was encouraged to proceed with the delivery, (two or three, tea-spoonful of brandy having been given her.) Under existing circumstances, there was no difficulty in turning the child, but the projecting promontory of the sacrum opposed a little resistance to the passage of the head. The placenta followed almost immediately, and the hemorrhage ceased.

The symptoms, however, of collapse were by no means relieved. The yolk of an egg was beaten up with brandy, and a small quantity given from time to time; but it failed in producing even a temporary rally. There was the high respiration in a most remarkable degree; the pulse conveyed a very feeble and fluttering sensation to the finger; the coldness of the surface was increasing, and there was a distressing state of restlessness. After waiting about three-quarters of an hour, it was very evident that we were losing ground, and I therefore determined on performing the operation of transfusion, aided by my friend Mr. Doubleday.

An obstacle, however, presented itself: the woman who had promised to supply us with blood now refused, and I had therefore to seek for some one else. After the lapse of half an hour, I returned, and found that during my absence the symptoms had been progressively increasing, and she was then in such a desperate state of exhaustion, that I must confess I scarcely conceived it possible for any thing to save her, though I determined to make the attempt.

A vein was opened in the arm of a gentleman, who kindly volunteered his blood on the occasion, and the operation was performed in the usual manner. I may mention in this place, (as we afterwards ascertained from the patient,) that at this period she could neither see, hear, nor speak; nor did she appear to feel, for, although she was naturally remarkably sensible to pain, there was no flinching when the integuments were cut through: neither had she the slightest idea of what we were about.

The first injection (thirteen drachms in quantity) produced no improvement in the pulse, beyond a temporary rally, (this, however, the brandy had failed in doing,) rendering it for a time rather more perceptible; but it is a remarkable fact, that from this time the restlessness ceased.

After waiting about five minutes, the injection was repeated (thirteen drachms,) and it had the effect of rendering the pulse a little more perceptible, though not to any great extent.

In another five minutes, one ounce and a half was injected: the pulse now became tangible, beating at the rate of 124 strokes in the minute.

She, however, still felt very cold; there was the high respiration, with occasional sighing; the aspect of the lips was rather improved.

In about five minutes more, fifteen drachms were injected: the pulse became a little more hurried after this injection, (140 in the minute,) but was still more perceptible; the respiration became for a few seconds a little more laborious. Her breathing was also rather stertorous, appearing as if she were in a dose; for this symptom went off if she was roused. She could at this time answer any question that was put to her.

The blood now flowed slowly from the arm of the gentleman who was supplying me: I consequently did not like to throw any more in, but had recourse to the arm of my own nephew, a healthy youth about fourteen years of age, whom I had taken with me for the purpose, and injected another fifteen drachms.* After this injection, there was a most decided improvement; the pulse became firmer, (130 in the minute,) the countenance improved in appearance, and the warmth was returning. In consequence of my washing the syringe with water that was too hot, the valve became imperfect; and I was on that account obliged to desist, which I regretted exceedingly; for, although I was quite satisfied that her improvement was sufficient to remove any apprehension of her dying from the *immediate* effects of the hemorrhage, yet, from her previously exhausted condition, and, from the irritable state of the stomach, which I feared would prevent the introduction of the necessary supply of nourishment, I should have considered her ultimate recovery more certainly secured by one or two more injections, although the quantity of blood injected (eight and a half ounces,) was twice as much as was employed in my first patient. The operation finished about one o'clock, and in about an hour afterwards I left her.

In this case it is to be observed, that the introduction of the blood did not produce any temporary symptoms of distress; and this, I apprehend, was owing to the extreme slowness with which I injected it; for, from some experiments I have lately assisted in making, I am led to infer that the sudden and forcible injection of the blood will create some unpleasant symptoms, and may, when the animal is exceedingly exhausted, extinguish the heart's action altogether, if the quantity thus forcibly injected be large.

I have before stated, that the patient had been from time to time supplied with small quantities of yolk of egg, with brandy: a little before I left the house, the whole of this was rejected from the stomach, just in the same state that it had been swallowed; it had not been acted upon in the slightest degree. This circumstance confirms my opinion that, in these *very extreme cases*, nourishment is of but little use, as the stomach does not possess the power of assimilating it.

Eight P. M.—There is a very comfortable warmth over the whole surface of the body; pulse 140, regular, though small; her countenance is cheerful; tongue clean and moist, but her stomach so irritable that she has not kept any thing on it excepting the effervescing draught. Complains of pain in the course of the vein, which was instantly relieved by loosening the plaster, which had been bound round her arm rather tightly.

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* It should, perhaps, be mentioned that about half an hour elapsed between this and the preceding injection.

Ten P. M.—Much in the same state; arm quite easy; complains of a little uterine pain.

I shall not enter into the tedious detail of every day-symptoms. I have the satisfaction of saying that the stomach became more settled after the first twenty-four hours. The pulse, for three days, ranged from 130 to 140, but there was no other alarming symptom; and, although there were several occurrences tending to retard her recovery, such as a very uncomfortable close room, a noisy house, and a want of proper attendants; yet she was enabled to sit up for about half an hour on the seventh day, and, on my visit this morning, (twelve days after her confinement,) she was sitting up in the bed with her clothes on. Her pulse remains pretty steadily at 100, and she is enabled to take a tolerable supply of nourishment; and, under all the circumstances of the case, I consider her to be doing remarkably well. She will, I doubt not, be some considerable time before she completely regains her strength, as she was so excessively reduced by illness previous to her confinement. The wound in the arm is nearly healed.

The recovery of this patient under so many discouraging circumstances has been highly gratifying to me, and has still further strengthened my conviction that transfusion of blood in desperate cases of hemorrhage, is not that wild and visionary scheme which some men are so industriously endeavouring to make it appear.—*Lond. Med. and Phys.*

Comparison of Indian and European Skulls.—Dr. PATTERSON, of Calcutta, from a comparison of numerous skulls of Indians with those of Europeans, has deduced that the head of the former is to that of the latter race as two to three. Or otherwise, that the head of an European fifteen years years of age, is of the same size as the head of an Indian thirty years of age.—*London Med. and Phys. Journ.*

Remarks on the Human Stomach, by SAMUEL THOMAS VON SOEMMERING. *Memoirs of the Bavarian Academy of Sciences*, vol. viii. p. 77—86.)—Soon after the new edition of my programm on the corporeal difference between the Negro and European, Mr. Billman, in Cassel, drew my attention to the fact, that, in respect to the stomach, there is also a great difference between these two races of mankind. The form of the stomach altogether appears, in the negro, rounder, or at least shorter, than in the European. If we compare, in the natural state, the stomach of a negro, fourteen years old, and of an European girl of twelve years, we observe this difference, particularly at that part commonly called its *cul de sac.* This blind sac is evidently more globular in the negro, and, above the junction of the œsophagus, more convex than in the European. A similar but still more remarkable roundness of the stomach may be observed in the stomachs of apes, and which may be seen in Daubenton's excellent plates to Buffon, just as it is found in the natural state. Thus, also, in the form of one of the most essential organs, namely, that of the stomach, the negro appears more to resemble the ape than is the case with the European. I am not aware that any one has noticed this difference before myself. Neither Charles White in his "*Account of the regular gradation in Man*," nor William Lawrence in his "*Lectures on Physiology, Zoology, and the Natural History of Man*," which, up to the present time, is the most perfect work on the differences of the human race, have touched this subject. Whether this remarkable difference can be looked upon as proof in support of the opinion of several natural historians, which is every day gaining more ground, viz. that mankind must have arisen from more than one original stock, and in what respect I shall, therefore, be obliged to change the opinion which I have before given, I will for the present pass by. But I must here formally protest against this new discovered corporeal difference being used as a plea in behalf of the cruel treatment which the Europeans continue to inflict on the negroes.

Another observation on the human stomach regards the description given by Sir E. Home,* of the contraction in the centre, which appeared to him so remarkable, that he therefore divided the stomach into the pyloric and the œsophageal halves. It is quite true that this contraction in the stomach is met with as Meckel has mentioned,† and which I have often observed myself. But as this appearance, as well as I recollect, only shows itself in the female subject, and as Home has drawn it from one female body only, I regard it as immaterial, or at least deviating slightly from the usual state. I am greatly mistaken if it is not the effect of the tight lacing,‡ particularly from the pressure of the breast bone of the stays; for such a bone laced only moderately tight presses just on the middle of the stomach, so as to divide it into two parts. This machine, made either of wood, bone, or steel, works like every other mechanical irritation applied to any part of the living vicera This must also be much more the case in the female stomach, as I have already remarked in my Splanchnology,§ as it is distinguished by its length from the broad roundness of the male stomach. But if such a contraction of the stomach belonged to its natural state, there must be a disposition to it, at least in some degree, apparent in the stomachs of children, in which, however, not the slightest trace of it is to be found.

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* Philosophical Transactions for 1817, part ii. Pl. xx. is evidently a rare malformation, either hereditary or the result of disease.

† Deutsches Archiv fur Physiologie, 4 Band. 1818, p. 130.

‡ Preisschrift uber die Schadlichkeit der Schnurrbruste, Leipzig, 1788. *See* Soemmering in the enlarged edition. Berlin, 1793.

§ In so far must C. G. Ackerman's Dissertatio de discrimine sexuum præter genitalia, Moguntia, 1788, "Intestinorum tractus nullum sexus discrimen ostendit," be altered.

The third observation on the human stomach concerns its lower end, or the *pylorus*. On examining the proper opening of the pylorus, which is most readily and easily done when the stomach is dry, and has been moderately distended with air, it generally appears more or less elliptical, seldom circular, consisting of a ring, occupied by concentric circles, which are different both as to their size and the direction which they take. Sometimes the pylorus, that is, the fold or ring which forms it, is broadest at the posterior surface of the stomach, and towards the anterior surface is narrowed in the form of a projecting fold. The longest diameter of this opening extends obliquely from before backwards; the smallest diameter, on the contrary, from above, downwards, or from the right to the left side, or the lesser to the larger curvature. Sometimes the ring of the pylorus is, on the whole, remarkably broader, and its opening somewhat smaller. It has, therefore, its greatest breadth on the smaller, and the largest on the greater curvature. Its elliptical opening appears with its longest diameter between the larger and less curvatures, with its smallest diameter, on the contrary, from behind forwards, or in the direction between the anterior and posterior surface of the stomach. Sometimes the ring of the pylorus is broader, and its opening proportionally smaller; then its greatest breadth is not on the small, but on the greater curvature, and the longest diameter of its opening extends not from the right to the left, but from the anterior to the posterior surface of the stomach. Sometimes the ring of the pylorus is proportionally to the size of the stomach, very broad, and its opening, at the same time, very small. Between these three or four remarkable differences in the form of the pylorus, its other varieties may properly be classed; but as we have an excellent monography on this subject from Leveling,* and a good description of this part from Haller, I will confine myself to the notice of a construction of the pylorus which was first discovered by one of my pupils, Scheuzer. This is a ring or circle of glands contained in the fold of this part, which, on the careful removal of the peritoneum and cellular membrane, may be shown. I have had the honour of showing this ring to the Academy, both in the natural state, and in two engravings. The natural size, the peculiar form, the true situation, the peculiar connection, as well as the line of demarcation marked out by it between the end of the stomach and the commencement of the duodenum, may be best seen in a preparation which has been kept in spirits of wine, and will then be so clear as to supersede, now, on my part, a more detailed description. F. Magendie distinguishes† in the stomach *la partie splenique* and *pylorique*. At the pylorus, he says, the mucous membrane forms a circular fold, called the *pyloric valve*, and that a fibrous dense tissue is found between its plates, called by some authors* the *pyloric* muscle. This valve of the pylorus serves both to prevent the return of the matter contained in the duodenum into the stomach, as well as to keep the food and chyme in this viscus.—*Ed. Med. and Sur. Jour.*

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* Diss. inaug. sistens Pylorum anatomico-physiologia consideratum. Argentorati, 1764.

† Precis Elementaire de Physiologie, tom. ii. Paris, 1817, p. 72.

Case of a New Born Child, in which the Brain and the greater Part of the Cranium were wanting. By JAMES GUTHRIE, Surgeon, Kilmarnock. —The mother of this child, who is of a delicate habit, complained of great distension of the abdomen during the latter months of pregnancy. "She often felt," to use her own words, "as if she would burst." The motion of the child was unusually strong and vigorous. I was called to attend her on the morning of the 3d December 1825. The *liq. amnii* had been unexpectedly discharged previous to my arrival, in an enormous quantity. It was said to amount to several pints; and, from what I observed, this calculation may be considered correct. On examination, the *os uteri* was found dilated to the size of half a crown. Uterine action not having fairly commenced, I for the present left her.

At 11 o'clock I was again requested to attend her. Examination now discovered an elastic tumour of an irregular shape in the vagina. On pushing the finger past it, I felt the occipital bone, and one ear, which convinced me that the head of the child presented. After two hours of severe labour, this extraordinary head was expelled. At this stage uterine action almost totally ceased, the body remaining for upwards of an hour in the vagina. The motion of the child was remarkably violent during this period. In order to hasten delivery, I attempted to bring down one of the arms by pulling at the wrist. This, however, I could not accomplish, though I used considerable force. During these attempts she complained much of pain. I next introduced two fingers along the neck of the child in search of the arm-pit. This I soon reached, and having fixed one of the fingers in it, I began extraction, which required considerable force. Uterine action was at last excited, and the delivery was soon accomplished. The placenta was easily extracted.

The child lived only an hour and a half. It appeared destitute of the power of voluntary motion. Respiration was performed by a convulsive effort. This was particularly observed during inspiration.

Dissection.—The tumour on the head presented externally the mulberry colour, and was of an hemispherical form. It felt soft and elastic to the touch. On the summit a number of large vesicles were observed, which, on being punctured, discharged a considerable quantity of serous fluid. The cavities from which this fluid issued, did not communicate with the cranium. Internally this tumour presented the appearance of sarcoma, but was much more elastic. It was very vascular, and contained a considerable quantity of dark-coloured blood.

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* Magendie mentions the name of no individual author, but probably alludes to Abernethy. *Vide* Physiological Lectures, London, 1817, p. 178.

On examining the cranium, it was found, that the scalp, the *os frontis,* the parietal, and a great part of the occipital bones, were wanting. Indeed, the cranium appeared as if sawn directly across from the superciliary ridge to the protuberance of the occipital bone. The remainder of the cranium was covered by the scalp, and lined internally by the dura mater. This last membrane did not extend farther than the bone, at least no appearance of it could be observed in the tumour. This remarkable tumour adhered firmly to the scalp and the dura mater. On its removal, a large quantity of serous fluid escaped in a full stream, apparently from the base of the cranium. The *sella turcica* was unusually prominent. I observed part of the *tentorium* entire; but no vestige of cerebrum or cerebellum could be detected after the most minute inspection. Circumstances prevented me from examining the spinal marrow. The cranium was much thickened; and from the deficiency of bone, the eyes appeared to project much more than usual.

In conclusion, I am disposed to consider the above case as one of malformation, connected with a dropsical state of the ovum.—*Edin. Med. and Sur. Jour.*

Experiments on Poisoning.—M. SEGALAS communicated to the Academy of Medicine the result of some experiments made by him, tending to prove that poisons rather produce their effects through the medium of the vessels than of the nerves. The following is the result of his researches:—

1st. Having cut the spinal marrow of an animal, so as to render it paralytic, and having placed some alcoholic extract of nux vomica in the paralysed parts, he perceived that tetanus came on just as quickly and powerfully as if the nervous system had been entire.

2d. Having, on the contrary, left the spinal marrow untouched, but prevented the blood which returned from the part where the poison had been lodged from being carried to the heart, he observed that the poisoning did not take place.

3d. Tetanus appeared to come on equally quickly when he injected the poison into the bronchiæ, although the eighth pair of nerves were divided.

4th. The nux vomica placed in the thigh of an animal rendered paralytic by the division of the spinal marrow, produced tetanus not only in the trunk and upper extremities, but also in the paralysed parts.

5th. The same result takes place in whatever part the poison has been placed; only the contraction of the paralysed muscles is slower, and seems only to occur in proportion as the blood conveys the poisonous matter to the nerves which animate them.

6th. Having injected the poison into the crural artery of a paraplegic animal, its effects were manifested in the like manner: the convulsions commenced in the thighs, and only became general after the lapse of time judged to be necessary for the conveyance of the poison to the spinal marrow.

M. Segalas concludes from his experiments, that the voluntary muscle can contract themselves, in certain cases, independently of the action of the spino-cerebral system.

In these experiments, M. Segalas has often designedly made the division of the spinal marrow at different points, but most commonly on a level with the last vertebræ of the neck, or the first of the lumbar vertebræ ; and this has produced no modification of the phenomena.—*London. Med. and Phys. Journ.*

PATHOLOGY.

Tetanus—Singular mode of treating this Disease at the Tonga Islands. —Tetanus, we are told, is a complaint very frequently met with in the Tonga Islands,* where it arises, most generally, from wounds and other injuries received in battle.

By the inhabitants of these Islands the disease is termed *gita ;* and they have remarked, that it more frequently follows punctured than incised wounds ; and wounds of the extremities, particularly of the hands and feet more than those of other parts.

Among the principal *exciting* causes they particularly enumerate sudden alarms, the stimulus of venereal desire, and the common operations of washing and shaving, and cutting the hair and nails. In cases, therefore, where there is reason to apprehend an attack of this disease, the patient is carefully watched, females are rigorously excluded from his presence, and the above operations are entirely dispensed with, and this often even for months.

When, notwithstanding all their care, the disease does occur, their mode of treating it is very singular, and, at the same time, more successful than any in use among us, if credit can be given to the accounts we have received of it.

This mode consists in producing a considerable degree of irritation in the urethra, and a discharge of blood from that part, which is generally effected by introducing a reed of a proper size, for some distance into the passage. Sometimes, however, (as in the more violent cases,) a double thread is passed down to the perinæum over the end of the reed, and there cut out, so as to convert the entire of the passage into one long seton. When this is the case, one extremity of the double thread hangs, of course, from the natural opening of the urethra, and the other from that made in the perinæum ; and the thread being occasionally moved to and fro in the passage, great pain and irritation, and an abundant discharge of blood, are thus easily produced at pleasure.

Our author states, that he twice had himself an opportunity of seeing this latter operation performed for the cure of tetanus, and each time with success.

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* A cluster of islands in the South Pacific Ocean, called Friendly Islands by Captain Cook.

In both cases the disease supervened upon a wound in the foot, made by an arrow not barbed; in both, the symptoms came on suddenly, and within three or four days after the wounds were received; and in both, the spasms are stated to have been extremely violent, and to have extended over the whole body; in neither, however, was the jaw *permanently* locked.

In case the operation was performed, we are told, as soon as the nature of the disease became distinctly marked; and in both it was followed by speedy and permanent relief. In one of the cases, the thread was withdrawn (the symptoms having all subsided) on the second or third day; in the other on the fourth or fifth. In both cases considerable pain and swelling of the penis came on after the operation; but these symptoms yielded without difficulty, in the course of a few days; and the opening in the perinæum also healed up in each without any trouble.

Observations.—Although the work to which we are indebted for the particulars given in the preceding detail* has been for years before the public, yet we are not aware of the singular practice here described having been hitherto noticed in any publication strictly professional. We have been induced, therefore, to draw up this short article in the hope of exciting some attention on the part of our brethren to the subject; for the opinions and practices of a people whose medical knowledge is derived entirely, it may be said from observation, are not in a case of this kind to be despised.

Every fact, indeed, calculated to enlarge, in any manner, our knowledge with respect to the treatment of a disease so generally fatal as traumatic tetanus, is deserving of attention: and persons, therefore, who may not be inclined to adopt exactly the Tonga mode of proceeding in this disease, may yet find in it matter for useful reflection, and derive from it hints, perhaps, for a better mode of practice than any at present in use amongst us.

We may add, that there is no good reason to doubt the accuracy of the account given by Mr. Mariner on this subject; for although not a professional man, he was yet, from various circumstances, well qualified to profit by the opprotunities for observation which his situation afforded him.—*Lon. Med. Repos. and Rev.*

Melanosis of the Stomach. (*Archives Générales de Medecine, Mars,* 1826.)—It has been shown by several remarkable cases, that this singular disease is by no means confined to the lungs, but pervades various textures of the body. The following, however, is the first instance in which it has been observed in the stomach. The particulars prove, that in this situation, as in others, it is so far from being a malignant disease, that it may even exist without any obvious symptom whatever.

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* Mariner's Account of the Tonga Islands, edited by Dr. Martin, 2 vols. 8vo. London, 1818.—Vide vol. 2, p. 241.

A woman, about fifty years old, died under Lerminier's care at the Hospital of La Charité in Paris. She was admitted on account of a general dropsy and ascites, which appeared to be independent of any affection of the heart, liver, or other important organ. It commenced with anasarca of the limbs, and advanced very slowly; and her breathing was not affected till the belly became distended. During the six weeks she past in the hospital before her death, the dropsy continued without change, she got gradually weaker and weaker, and at length she had occasional purging. and great disinclination for food. She had no pain in the stomach, however, no vomiting, and nothing unnatural in the state of the tongue. The heart was natural; the lungs gorged posteriorly, but otherwise sound; the liver healthy; the thoracic duct was free, and contained the usual serosity. The spleen, pancreas, mesenteric glands, and urinary organs were all of natural appearance. The stomach contained three glassfuls of a liquid as black as ink, which stained paper like the colouring matter of the choroid coat of the eye. The surface of the stomach, when washed, was seen studded with innumerable black spots of a circular or oval form, varying in size from that of a millet-seed to that of a shilling, confined to the mucous coat, and surrounded, at least the larger ones, with livid redness and greater firmness of the membrane. The interstices were of a pale whitish colour, as in the healthy stomach. Except around some of the larger spots, the villous coat was of natural consistence. There was nothing else worthy of observation in the whole alimentary canal. The appearances in the stomach taken together bore some resemblance to the effects of the concentrated sulphuric acid. Andral, the relator of this case, conjectures that the black fluid in the stomach must have been secreted very soon before death, if not after it, because, if the secretion had been going on for some time, the woman would have vomited some of it. It is singular that so extensive a derangement should exist without causing any symptom. It is hardly possible at least to connect the dropsical affection with it; and even the anorexia, the only symptom referrible to the stomach, might have arisen from the general depression of the system accompanying the dropsy.—*Ed. M. and S. Jour.*

Case of obstinate Vomiting, and supposed organic disease of the Stomach.—A very interesting narrative occurs in Dr. Carter's report, of the more important cases at the Kent and Canterbury Hospitals, published in the London Medical Repository. Mary Holland, aged 4, affected with vomiting of food soon after it was taken, burning pain at pit of stomach, and between the shoulders. Her complaints had subsided for two years. Her pulse was frequent and feeble: tongue clean; bowels constipated; catamenia regular. There was tenderness about the scrobiculus cordis; countenance was expressive of distress; palpitation and emaciation, temperament scrofulous. The patient had been bled, blistered, &c. She was again bled with leeches, took small doses of calomel, with ext. conii, oxyd of bismuth with opium, gentle laxatives, and used the tartar emetic ointment. No relief. Pain and vomiting increased. Prussic acid—pil. hyd. sub. mur. comp. decoct. aloes comp. sulph. of quinine in infus. rosæ comp were successively tried. Dr. C. then tried ℞ Ext. flor .calcudulæ griij. pulv. glycyrrh. q. s. ut fiat. pil. tertia quaque hora sum. All other medicine was laid aside. Under this with occasional leeches and laxatives *relieved.*

Calendula (*Marigold.*) The organic affection of the stomach in this case is inferred from the constancy of the pain, the emaciation, and the appearance of the matter thrown up by vomiting. The event alone would seem to militate against such a conclusion.

The calendula is an ancient though almost forgotten medicine. It has been used with success to alleviate the pain of a scirrhus uterus. The preparation employed, was an aqueous extract of the flowers, 1lb. 2oz 3drs. 20grs. of the flowers, produced 1oz. 3drs. of aqueous extract.

SURGERY.

Treatment of Traumatic Erysipelas by Cauterization. (*Revue Médicale, Fevrier* 1826.) Baron Larrey has lately revived the practice, recommended towards the close of last century by Pelletan, of treating the erysipelas arising from wounds by the superficial application of the actual cautery; and he reports very favourably of the result of his trials. In the paper he has published, two cases are detailed at length, as examples of what has frequently occurred in his practice. In one, a gunner of the horse artillery, who had received a severe contused wound on the leg from a kick of his horse, erysipelas began to appear on the fifth day, and spread rapidly over the whole leg. On the eleventh day it had advanced far up the thigh; phlyctænæ had arisen around the wound; the limb was much swelled, of a violaceous colour, and benumbed; and he had all the constitutional symptoms usually developed in the dangerous cases of this disease. Compresses soaked with camphorated vinegar were applied over the whole limb. But next day the local affection was undiminished, and the constitutional disorder had increased to such a degree, that the patient could not articulate for weakness. The actual cautery was then resorted to, and little superficial cauterizations were made at convenient intervals on the affected parts of the limb, to the number of fifty. The moxa was likewise applied to the epigastrium! Next day the erysipelas was almost entirely dissipated, the swelling of the limb considerably reduced, suppuration re-established in the wound, and the fever very much abated. From this period he recovered rapidly, a piece of bone exfoliated, and the wound soon healed.—The second case was that of a soldier of the foot guards, who received a contusion on the head, with slight laceration of the skin, and was attacked with erysipelas around it on the fifth day. A crucial incision relieved him for a time, but the inflammation began to spread soon after, and in no long time occupied the whole nucha and shoulders. The usual fever also manifested itself, and increased rapidly. In this state of matters Larrey had recourse to the actual cautery, and touched the infl ed parts lightly on forty points at proper intervals. Next day, as in former instance, the erysipelas had almost disappeared, the suppuratic the wound, which had never been entirely suppressed, became much n abundant, and on the tenth day the swelling of the head had fallen c pletely. An exfoliation of the bone under the wound succeeded; but vertheless, the man was dismissed cured in forty days. When the hot is properly applied, no permanent injury is caused; the cuticle separ as on the other parts which had been affected with the erysipelas, onl is a little thicker, and the skin is not marked by the slightest scar. S observations are appended by the author on the mode of action of the medy; but they are very crude and hypothetical. Though termed c of erysipelas, we suspect the foregoing are examples of spreading inf mation of the cellular tissue.—*Edin. Med. and Surg. Jour.*

Aneurism of the Aorta, &c.—Fatal Case.—In the month of May June last year, (1825,) a man, aged thirty-four, by trade a brick-make temperate habits, tranquil disposition, apparently in good health, and r ried, became affected, without any known existing cause, with a s tumour in the left ham,* accompanied by pains in the knee, which fo time were mistaken for, and of course mistreated, as rheumatic, in on our public hospitals.

On leaving the hospital, and discovering in some measure the caus the pains, &c., he returned to his trade as a brick-maker, and contin at it until about the middle of the month of October, when the incre size of the tumour, the severity of the pain, and the inability of exten or resting his body firmly on the limb, compelled him to give up work, apply for professional assistance.

As the nature of his disease was now very manifest (for the tum which lay in the hollow between the ham-strings, was large, firm, pulsat and rather elastic,) and as there was nothing in the state or circumsta of the patient to forbid such a proceeding, the common operation for liteal aneurism was performed upon him in his own house, by the repo (Mr. Arnott,) on the 28th of the same month (October).

The operation was performed, we are told, upon the patient as he la bed, and a single ligature (of silk) was employed, which was passed ro the artery, before it penetrated beneath the sartorious muscle. No un disturbance, therefore, was given to the parts at the time of the opera and the subsequent progress of the case was entirely favourable; so by the beginning of December, the ligature had come away, the wo had closed up, the tumour had diminished to half its former size, and patient had already begun to make some use of the limb.

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* The bones of this leg had, however, it appears, been fractured some y before.

About six weeks after this period, that is, on the 18th January (1826,) this man who had, it appears, been for some time going about, but had not yet returned to his usual employment, DIED suddenly whilst sitting at his own fire-side; and, as it would seem, without having experienced any previous distress, or intimation of danger.*

The body was examined, probably on the succeeding day; and the following is the report of the appearances met with, as given by Mr. Arnott—

Examination, &c.—' On opening the body, the pericardium was found to be distended with blood, separated, however, into coagulum and serum. On removing this, the heart itself was examined, which led to the discovery of a small *aneurismal swelling* of that portion of the aorta which is included within the pericardium, and where it is still covered by fat, continuous with that of the heart. This swelling was not very prominent, and was similar in size, and somewhat in shape, to that of half of a small walnut.

' A spot, the size of a split pea, on the surface of the swelling, was of a dark colour, owing to the thinness of the parietes at this place; and in the centre of this spot was a minute aperture, barely sufficient to admit the point of the blow pipe, through which the blood had proceeded, which, filling the cavity of the pericardium, and oppressing the action of the heart, had produced the patient's immediate death.†

' The limb, which had been the subject of operation, was next examined, and the artery removed from the groin to below what remained of the aneurismal tumour.

' The ligature had been thrown around the vessel an inch and a half below the origin of the profunda. Its situation was indicated by an indentation; and on stretching the tube, the two portions of artery were seen to recede a little at this place from each other, leaving a narrow space between them, which was seen to be transparent, and where the continuity of the two was only kept up by means of cellular membrane.

' The obliterated portion of the artery was not quite an inch in extent; that of the upper extremity of the vessel measuring five-eighths of an inch in length, that of the lower a little more than two-eighths. The ends of both were firmly united and consolidated. The plug in the upper portion terminated superiorly, precisely on a level with a small branch going off from the trunk of the vessel.

' Below the obliterated portion, the artery preserved its natural size, and was quite pervious all the way down to the aneurism; and at one place where it was opened was found to contain fluid blood. Opposite to the aneurism the artery again became impervious, and for the extent of upwards of an inch.

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* He had been sitting with a friend who had quitted the room for a few minutes, we are told, (' not more than three minutes,') and on his return found him dead.

† This explanation is not, we may observe, very satisfactory: through an opening so small the blood must have escaped into the pericardium very slowly and gradually, whilst the death of the patient was sudden and instantaneous.

'What remained of the aneurismal sac was of the size of a hen's egg: it formed an abrupt tumour on the vessel. The contents were solid, densely laminated coagula of blood; the section presenting lamellæ of uniform colour and consistence.'—*Lon. Med. Repos. and Rev.*

OBSTETRICS.

Of Twin Births.—M. Duges, in the Revue Médicale for March 1826, has given some interesting observations respecting 'accouchemens multifares,' which wė can only translate by circumlocution, viz. the production of twins, or more at a birth. He commences by assigning the term accouchment for the whole phenomenon, and parturition for the action which gives birth to an infant. In this division of terms, we shall follow him for its convenience.

'From a review of registers at Paris, out of 37,441 accouchements there have been 36,992 parturitions; 444 twins; 5 triplets.

'*Sexes.*—Out of fifty-four twin cases, taken at hazard, five have given a boy and a girl; thirteen, two girls; and twenty-six, two boys; this last proportion, which is one-half of the whole, seems to be the most common. In two triplets, observed by M. La Chapelle, in one there were three girls and in the other, two girls and a boy.

'*Volume and Weight.*—Twins are generally smaller than infants which are alone in the womb. The average weight of twins is four pounds each, and the extremes are three pounds and eight pounds, so that the same total weight remains. Triplets have rarely a less weight than twins, provided they are not born prematurely.

'*Dispositions of the Envelopes.*—Sometimes the twins are contained in one membranous envelope only, and are bathed in the same waters; but this is a very rare case. Madame La Chapelle has never observed it; and both twins and triplets delivered by her have been each in a separate sac, and divided by an union of the two chorions and the two ammios. The epichorion is simple, and surrounded by both sacs. In some cases, the chorion does not make a part of the division; and there is but one for both fœtuses. Dr. Duges himself, however, has never met with this disposition of the membranes. The placenta is more frequently single than otherwise; the proportion has been almost as three to two. Moreover, we mee with every variation of union, from single contact to complete union, without even a line of separation being visible; so that sometimes there is an anastomosis of the vessels of one fœtus with those of the other; and sometimes the anastomosis does not exist. When it is present, it is not by means of the capillary system; for, in the same placenta, even the capillaries of one cotyledon do not communicate with those of the other. The anastomosis is always effected by large vessels, such as ramify on the fœtal surface of the placenta.

'*Position.*—In comparing the position of twins, out of fifty-four accouchements, in thirty-six the infants have presented the same part to the mouth of the uterus, as the head, the buttocks, &c.; eighteen presented different parts, as one the head, another the shoulder, &c. In this last case, it was not always the first-born which exhibited the most favourable position.—*Lon. Med. Repos. and Rev.*

Case of Recovery from Rupture of the Uterus. By LEWIS FRANK, Physician and Counsellor to the Dutchess of Parma. (*Annali Universali di Medicina, Febbr.* 1825.)—A woman, 44 years old, in her sixth pregnancy, was taken with labour pains at the usual time. While standing, with the assistance of the midwife, she was suddenly seized with faintness and vomiting; and while her husband and the midwife were assisting her into her bed, she complained of a sense of tearing in the belly, and a feeling as if there were two fœtuses. The belly soon began to swell, the vomiting recurred frequently, and the breathing became interrupted. Professor Rossi being called to see her, recognised a rupture of the uterus, and after consulting with some of his friends, proceeded to extract the child by the operation of gastrotomy. The incision was made on the left side of the hypogastrium where the feet could be felt, and in no long time the fœtus and secundites were extracted. The child gave some signs of life, but soon expired. Forty days after the operation, the woman was restored to a state of perfect health, except that she had a hernial tumour of the size of a large apple in the seat of the incision. Three years afterwards she became again pregnant, and brought forth a seven-month's fœtus, which lived fourteen days.—*Edin. Med. and Surg. Jour.*

MATERIA MEDICA.

Effects of the Juice of the Manchineel. (*Archives Generales de Medecine, Mars* 1826.)—Many fabulous accounts have been given of the effects of the juice and aeriform emanations of the manchineel, (*Hippomane mancinella*) and latterly it has been supposed to possess the power of acting both as a narcotic and as an irritant poison. The following experiments by Orfila and Ollivier prove that it is a pure irritant, and that it is the most energetic of all the vegetable irritants. It has a faint taste, succeeded by a sense of acridity, and afterwards by a sense of burning and very unpleasant constriction in the back of throat, lasting sometimes a whole day, and excited by the smallest drop. It has no effect on the skin of the hands; but if put on the cheek, it causes an erysipelatous redness, with slight swelling and continued itching, succeeded in a day by miliary vesicles, which desquamate in three or four days. When applied in the quantity of a drachm and a half upon the skin on the inside of the thigh of a small dog, it did not seem to cause much pain; but the animal limped with the leg to which the poison was applied. In an hour he appeared downcast and soporose, but could be easily roused; he then had some vomiting;

the weakness increased rapidly, so that he was soon unable to stand; the tears ran over the face, the respiration became quick and feeble, and he died in about twenty-four hours, without having experienced convulsions, and apparently without, at any time, suffering pain. Five or six drops introduced into a wound killed guinea-pigs in the same manner. After death marks of inflammation were always found in the cellular tissue, extending over the whole abdomen and back as high as the middle of the chest; the tissue was injected, friable, and infiltered with serum. The abdominal and thoracic organs were healthy, and so was the brain. When introduced into the stomach in the dose of a drachm, it speedily caused vomiting, and the animal became dejected and wearied, and uttered at intervals a plaintive cry. Diarrhœa succeeded in an hour. The weakness and dejection gradually went on increasing; and death took place in about twelve hours, without any sign of an affection of the brain. The stomach and great intestines contained a large quantity of red matter, like the dregs of red wine, and a small quantity was likewise contained in the smáll intestines. The stomach, duodenum, and great intestines, had a reddish black colour internally, arising from excessive injection of their vessels. The jejunum was hardly affected; but the ileum had a cherry red colour, which increased in depth towards the colon. When half a drachm was injected into the jugular vein, the animal died in two minutes, and the blood in the heart was found coagulated soon after death.

These experiments prove that the juice of manchineel is a pure irritant, and that it should be ranked at the head of the vegetable Acrids. The effect produced by its application to the skin or a wound, furnishes the purest example of spreading inflammation of the cellular texture.—*Ibid.*

On the use of the Pomegranate Bark as a remedy for Tænia. (*Hufeland's Journal der Practishen Heilkunde, August* 1825.)—Dr. Wolff of Bonn has published some good cases, exemplifying the efficacy of the bark of the root of the pomegranate in obstinate tænia. This remedy was proposed not long ago in a paper in the London Medico-Chirurgical Transactions, by Mr. Breton, who borrowed the practice from the natives of Hindostan; and since then it has been successfully employed by Dr. Gomés of Lisbon. Dr. Wolff has given it in ten cases. In three it was eminently successful; in five it had little or no effect; in the two others the existence of the disease was doubtful. He says it has the advantage over oil of turpentine,—the most efficacious of the remedies yet proposed,—in being quite harmless, and not nearly so disgusting, in producing its effect with great rapidity, and in not requiring any preparative treatment. He generally used a decoction made by boiling to 12 ounces an ounce of the half dried bark in 24 ounces of water; and of this he gave in the morning two ounces every half hour, as directed by Mr. Breton. Some vomiting occasionally took place before the requisite quantity was taken; but, on inmitting the medicine for an hour or two, the stomach bore it better. In one case, after six doses were taken, the patient had six fluid stools, and a worm was discharged *alive*, measuring seven Cologne ells. Several fragments followed, and on the same day the patient felt quite well. In the second case, the remedy was twice tried unsuccessfully; but on trying it again in stronger doses, the same effects followed as in the former instance. In the third the good effects were obtained with the first doses. In all, the action of the remedy was accompanied with nausea, and sometimes with vomiting,—symptoms, however, which Dr. Wolff ascribes not to the remedy, but to the agitation into which the worm is thrown. In the five unsuccessful cases he suspected the bark was not of such good quality as the first sample he procured, the plant having been more sickly, and having flowered before the bark was gathered. But his want of success he is rather disposed to attribute to the remedy not having been given at a time when the worm is most irritable, and therefore most easily acted on. He says he has observed that remedies are always most likely to succeed if given at the time when fragments of the worm are discharged naturally; and supposes that at this time it undergoes some change, during which it is more sensible to external agents. In one of the unsuccessful cases it operated partially, causing the protusion from the anus of two ells of the worm. Various poisons were applied to this portion with a view of killing the animal, but without avail. Even in the concentrated Prussic acid it was observed to contract and elongate itself, and no injury was produced.—*Ib.*

Examination of the Question, whether the Medical use of Phosphorus internally is useful, injurious, or equivocal. By Pietro Moscati. (*Annali Universali di Medicina, Lugl.* 1825.)—Several attempts have been made to introduce this substance into medicine, particularly in Germany and Italy; but great doubts have justly been entertained by some of its safety, and by others of its efficacy. The observations of Moscati will account for the discrepant results which have been obtained by different individuals. He sets out with remarking, that, as phosphorus possesses the power of burning, at a low temperature, in air, and in some other gases containing oxygen, there can be little doubt that it must also sometimes catch fire in the stomach; that as the aeriform fluids in the stomach sometimes do not contain any gas capable of supporting its combustion, it may escape acidification, and that these two circumstances will account for its acting sometimes merely as an active stimulant, sometimes as a corrosive poison. In the way in which it has usually been administered, it exists generally in its simple state. For he has found that when reduced to fine powder by agitation in boiling water, and then made into an electuary, or when given in solution in alcohol and ether, it continues in the state of phosphorus. Some physicians have observed it to have no effect at all, either as a poison or as a remedy. The reason is that, when dissolved in alcohol or ether, it separates, in a short time, almost entirely in the state of fine powder; so that there can never be any certainty of the dose, if the solution is not recently made. For these reasons he suggests that it ought to be discarded from medical practice altogether.—*Ib.*

MEDICAL JURISPRUDENCE.

Account of Prof. Berzelius's *Method of detecting Arsenic in the Bodies of Persons poisoned.*—Prof. Berzelius has lately given some instructions for the discovery of arsenic in persons that have been poisoned with it. He considers *the reduction of arsenic to the metallic state as the only incontestable proof of the presence of this poison.* Arsenic may occur in two ways, —viz. when it is found in substance (in the state of arsenious acid) in the dead body, and when is is not found in this state ; though the intestines of the dead body may contain it in the state of a solution.

In the first of these cases, it is easy to determine the presence of arsenic. In order to do this, take a piece, about three inches long, of an ordinary barometer tube, and having drawn out one end of it into a much narrower tube, close the end. Let some of the arsenic found in the body be now put in at the open or larger end, so that it may fall down to the bottom. Any quantity of this arsenic, of sufficient volume to be taken from the body, will suffice for this purpose. The arsenic being at the bottom of the small part of the tube, a little charcoal is let fall upon it, after it has been freed from all moisture by bringing it to a red heat with the blowpipe. The charcoal is then heated in the tube at the flame of a spirit-lamp, the point where the arsenic lies being held out of the flame. When the charcoal is very red, the point containing the arsenic is drawn into the flame. The arsenic is then instantly volatilised, and, passing into vapour by the red charcoal, it is reduced, and reappears on the other side of the flame in a metallic state. The flame is then brought slowly towards the metallic sublimate, which is thus concentrated into a smaller space in the small tube ; and then presents a small metallic ring, shining like polished steel.* We have now only to verify, by its smell, that the metallic sublimate is arsenic. For this purpose, cut the small tube with a file a little above the sublimate, and, having heated the place where it lies, put the nose above it at a small distance, and the particular ordour of the metal will be immediately perceived.

In the case where the solid arsenic cannot be found, we must collect as much as possible of the contents of the stomach and the intestines, or even cut the stomach in pieces, and mix it with its contents. The whole is then to be digested with a solution of hydrate of potash. Hydrochloric acid is then added in excess. The whole is filtered, and, if the liquor is too much diluted, it is concentrated by evaporation. A current of sulphuretted hydrogen is then passed through it, which precipitates the arsenic in the form of the yellow sulphuret. If the quantity of arenic is very small, the liquid will become yellow without giving a precipitate. It must then be evaporated: and, in proportion as the hydrochloric acid becomes more concentrated, the sulphuret of arsenic will begin to be deposited. It is then filtered, If the sulphuret remaining on the filter is in too small a quantity to be taken from the paper, add some drops of caustic ammonia, which will dissolve it. Then put the liquid which passes the filter into a watch-glass, and evaporate it. The ammonia will be volatilised, and will leave as a residue the sulphuret of arsenic. If it shall still be difficult to collect the sulphuret, we must put into the watch-glass a little pulverised nitrate of potash, and with the finger, mix the sulphuret with the nitrate of potash, which detaches it from the glass. At the bottom of a small phial, or a piece of glass tube, shut at one end, melt a little nitrate of potash at the flame of a spirit-lamp, and introduce into it, when melted, a little of the mixture which contains the sulphuret of arsenic. It is oxidised with effervescence, but without fire or detonation, and without loss of arsenic. The melted salt is then to be dissolved in water, and lime added in excess, and the liquid boiled. The arsenite of lime will then be deposited, and may be collected. When dried, it is mixed with charcoal, and then brought to a red heat by the blowpipe; and a small quantity of this mixture is allowed to fall to the small end of the above-mentioned tube. It is now gradually heated to expel all humidity which tends to throw it into the wide part of the tube; and, when it is very dry, heat, at the flame of the blowpipe, the part of the tube which contains the mixture. The arsenic will be disengaged, and be sublimed at a distance from the heated part. An addition of vitrified boracic acid greatly promotes the decomposition which then takes place at a less elevated temperature; but the acid frequently contains water, and produces a bubbling of the melted matter, which raises it in the tube, and causes the vapours to issue by perforating the softened part of the glass.

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* Had the experiment been made in the wide part of the tube, the result would scarcely have been visible with a small quantity of arsenic.

M. Berzelius maintains, that the *sixth part of a grain of sulphuret of arsenic is sufficient to make three different trials;* but he adds, that, when we have discovered only very small traces of arsenic, we must take care not to introduce any by means of re-agents, among which, both the sulphuric and the hydrochloric acid may contain it. The first almost always contains some arsenic when it is manufactured from volcanic sulphur; and the second, in consequence of sulphuric acid being used in the preparation of hydrochloric acid, yields the arsenic which it contains in separating it from soda. We must, therefore, be certain of the purity of these re-agents.

When death has been caused by the arsenic, and not by the arsenious acid, the process must be modified, because the sulphuretted hydrogen gas decomposes the arsenic acid too slowly. In this case, we must add hydrosulphuret of ammonia, which reduces the arsenic acid to the state of sulphuret, which is afterwards precipitated by the hydrochloric acid.—*Lon. Med. and Phys. Journ.*

Marks of Vitality in New-born Infants.—It was in pursuing these researches that Dr. Bernt hit upon an observation, which, if correct, will establish the distinction of an inflated from an uninflated lung, upon the most solid foundation. He seems himself to consider it as an almost infallible test.

The circulation of a child undergoes an extensive revolution the moment it breathes, and the placental subsidiary action becomes suspended. The blood arriving at the liver by the umbilical vein, is withdrawn from that organ, which ought to be rendered so much lighter by its abstraction; and the lungs, by the blood of the ductus arteriosus flowing through them, must have become proportionally heavier. The mere examination of these circumstances in a new-born child, will go far to determine whether it has breathed: but the test which he chiefly rests upon, is the appearance and situation of the opening of the foramen ovale. *This hole, in a child which has never breathed, is exactly in the bottom of the fossa ovalis; but, as soon as the child has breathed, the aperture becomes turned towards the right;* in several weeks, it has ascended *very high;* and, in adult age, is found to have arrived at the *summit of the oval.* In other words, from the moment respiration commences, the aperture of the foramen ovale begins to travel from the lower extremity of the oval hole towards the upper, proceeding from *left* to *right*: and the degree of advance it has made, becomes an index of the existence and duration of the respiratory process.

This semi-revolution of the aperture around the centre of the axis of the foramen ovale, after birth, so important in an anatomical and physiological, as well as docimastic, point of view, is in some degree hinted at by our countryman, Dr. Humphry Ridley, (*Observ. de Cord. Embryon.* Lugd. 1750, at p. 180—4;) but afterwards more fully developed by Dioboltd, in 1771.

The reason of the phenomenon, Dr. Bernt conjectures to be the contraction of the muscular fibres of the isthmus Vieussenii; but we are ourselves inclined to attribute it rather to the diminished resistance offered after birth, to the stream of blood projected from the right ventricle, and the consequently increased resistance to that which is simultaneously sent from the left. It is known that accumulation in the right ventricle generates also an accumulation of blood in the right auricle, and even in the venæ cavæ which opens into it. As long as this state continues, the lower cava, aided as it is by the placental contribution, will be predominant; and, ascending from below, will keep the valve of the oval hole from adhering to the edges, from above downwards; or, in other words, will preserve the aperture at the bottom of the fossa. But, as soon as the aortal resistance is withdrawn from the right side of the heart, by respiration, and the placental supply from the lower cava, by obliteration of the cord, the equilibrium becomes almost perfect between the ascending and descending cava, in the infant; and the centre of their joint impulse must be brought up near, or beyond, the central diameter of the oval hole. The valve, however, can only be displaced gradually in this direction; and, accordingly, it is not before the adult age that the aperture arrives at the top of the valve. This ascent is much assisted by the preponderance of the left ventricle, which, re-acting against the whole resistance of the circulation, lessens the angle of position of the axis of the right heart to the axis of the hollow veins, and thereby the line of pressure upon the oval hole, in the direction upwards. At all events, whatever is the theory, the fact is most valuable; and we consider both the docimastic methods above adduced, as affording simple, easily practicable, and therefore most valuable, additions to the jurisprudential part of our profession; and to that part of it which is never exercised without great hazard of the reputation, and certain laceration of the feelings, even to the most conscientious practitioners.—*Ib.*

Case of Recovery from Poisoning with Sulphuric Acid. (*Horn's Arch. Mai and Juni* 1825. p. 454.) A female servant, 19 years of age, in a fit of passion, swallowed the concentrated sulphuric acid. She was immediately seized with great weakness and such acute pain in the stomach, that she cried aloud for help. A physician was immediately procured. An hour after she swallowed the poison, he found her speechless, with an almost imperceptible pulse, frequent fainting fits, paroxysms of trismus, difficult and convulsive deglutition, and instant vomiting of every kind of drink. She gave him to understand that she did not suffer much pain, but she had apparently resolved to conceal her sufferings with a view of concealing their cause. The tongue, inside of the cheeks, uvula, tonsils, and back of the fauces were yellowish white and wrinkled, the teeth surrounded by a black circle, and the lips yellow-coloured. The stuff she vomited was black, like a mixture of sulphuric acid and blood, and it corroded linen cloth and leather. At midnight she confessed the cause of her illness; and then a solution of soap, chalk, milk, oleaginous matter, and farinaceous decoctions were given in profusion. Afterwards magnesia was given along with opium, and the stomach was fomented with a mixture of spiced vinegar and laudanum.

On the morning of the second day, her resolution to die was worn out by her incessant agony. She tossed about in bed, complaining of dreadful anxiety and excessive weakness, bewailing her unhappy fate, and the shameful and horrible death to which she had doomed herself, as she thought, without recourse. The matters of vomiting were no longer acid, but she felt violent pain in the stomach and bowels, and a sense of burning in the throat; and the belly was tense, swelled, and tender; the inside of the mouth and fauces was covered with yellow spots, which were black in the middle, and vivid red on their margin, and the lips were dry like parchment. She was also still affected with frequent locked-jaw. The pulse had risen somewhat, the cheeks had a hectic flush, the urinary secretion was very scanty, and the bowels constipated. She had a horror at every kind of food and drink; and her medicines and diluents were administered by force, the teeth being kept apart during the attacks of trismus, by pledgets of leather. The tetanic affection likewise extended to the arms. On this account it was impossible to bleed her, as her physician desired. Leeches, however, were applied to the epigastrium. Fomentations with poppy-juice were then applied to the bites, and blisters were put on the calves.

On the third day the symptoms were somewhat mitigated. She vomited several lumbrici, which were dead, and partly corroded by the acid. On the fourth, the pulse was fuller; she had frequent purging of a yellow matter, mixed with clots of blood. The belly then became relaxed and less tender, and the urine flowed freely. Warm bathing was resorted to, and the anodyne fomentations continued. On the fifth she was much exhausted, and the pulse feeble; the lining membrane of the mouth separated here and there, as also the cuticle of the skin. Constipation having returned, calomel was ordered by the mouth, and injections of assafœtida and Glauber's salt. These remedies caused many evacuations mixed with clots of blood, streaks of purulent matter, and fragments of the villous coat of the intestines, (a pseudo-membrane.) Aromatic baths and emollient clysters were ordered. On the seventh, in consequence of some mental irritation, she had an attack of epilepsy, succeeded by delirium. She gradually got better, however, and in fourteen days from the commencement she was quite convalescent. The reporter adds, that before this accident she was passionate, revengeful, and quarrelsome; but was vastly improved in these respects afterwards, as well as in her general health.*—*Ed. Med. and Surg. Jour.*

Domestic.

Three cases in which operations for securing the common Carotid Artery have lately been performed.—By George M'Clellan, M. D.—In the months of May and June last, I performed three operations for securing the common carotid artery.

Case I,—Was a little daughter of Mr. West of Bristol, aged nine years, with an enormous *aneurism by anastomosis;* which, covering the whole of the left cheek, extended from the temple and eye of the same side to within two inches of the clavicle, and from the tube of the ear, which it filled, to the nose and mouth. The left nostril was closed by the disease; the tongue, soft arches of the palate, and tonsil of the same side, together with both lips, were also invaded by it and distended to an enormous size. The integuments were very thin and discoloured from the appearance of the diseased vessels underneath; and the whole mass pulsated actively and tumefied, whenever the patient was excited. The difficulty in performing this operation was very great, owing to the extension of the disease down the neck; but the common carotid was, notwithstanding, secured by a single ligature opposite the lower end of the thyroid gland. The ligature came away in fourteen days, and the tumour has since been gradually diminishing. It has already left the throat, ear, nose, and upper part of the cheek.

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* Mr. Ker, junior, of Paisley, whose very convenient apparatus for operating on small quantities of gases, is described in the 10th Volume of the Edinburgh Philosophical Journal, recommends that, to prevent accidental poisoning with this acid, all the sulphuric acid kept by druggists and apothecaries should be coloured blue by the addition of indigo, by which means it could not be mistaken for any other fluid. The quantity of indigo for this purpose is so small that it has no effect on the medical virtues or chemical properties of the acid.—Editor.

Case II,—Was a lad sixteen years old, in York, Pennsylvania. He had been thrown from a horse, three years ago, when he fell upon the right side of his head and received a severe concussion. He was afterwards afflicted with epileptic attacks; and, about twelve months ago, the left side of his body began to be paralysed. At the same time a hard tumour was discovered, just above the right ear, which continued to increase ever after. Most excruciating pains were unremittingly experienced in the situation of this tumour, and no relief could ever be obtained from the most active mode of treatment. The scalp was first divided, and carefully dissected from the surface of the tumour; when it was ascertained that a large and vascular fungus had begun to protrude through the bone in two separate points. This, no doubt, proceeded from the subjacent surface of the *dura mater;* and, as the meningeal artery of that part holds but few anastomoses with the surrounding vessels, it appeared reasonable to suppose that relief might be obtained by obstructing the circulation through that side of the head. The right carotid artery was therefore secured by two ligatures just below its bifurcation; and the wounds were dressed in the ordinary way. In about two weeks the ligatures came away spontaneously, and the patient was walking the streets. The tumour had diminished very much in seven days after the operation, and since that time has still further decreased. Dr. Macilvain writes that "the patient has remained entirely free from pain ever since the operation," "that his general health is greatly improved," and that "the paralysis is regularly diminishing."

Case III,—Was the daughter of Mr. J. Fryburg, of Spring Garden, five years old. When she was six months old a small and discoloured tumefaction was discovered in her left eye-lids, which continued to increase ever after, notwithstanding the use of leeches, low diet, lead water compresses, &c. In the month of May last, it had filled the whole orbit, so as to protrude the eye very much, and to tumefy the lids exceedingly. It was subject to alternate "risings and fallings," as the parents observed, during which the eye-ball would project and retire in a remarkable manner.

On pressing on the lids, the whole of the contents of the orbit could be felt pulsating, or rather rolling like a mass of small worms, so that no doub respecting the nature of the disease could exist. It was evidently an aneurism by anastomosis of an active character. On the 10th of June, I therefore exposed the left carotid just below its bifurcation, which in this case was nearly one inch lower than natural, and tied it with a single ligature. The patient, although very unruly, did well; and on the fourteenth day the ligature came away. The tumefaction of the lids has now almost disappeared, except at the inner corner of the lower lid, where it covers the lachrymal sac. The globe of the eye has also retired into the orbit almost to its natural depth; and no pulsatory movements can ever be discovered under the pressure of the fingers.

Of the difficulties which I encountered in performing the first and third of these operations no one who was not actually present with me, can ever form an adequate idea. A child cannot be prevented from attempting to cry, from holding in the breath, and from contracting the muscles of the neck violently when the head is confined by assistants,—all of which circumstances prove, to say the least, exceedingly embarrassing to the operator. On examining the records of all the cases to which I can gain access, I have been surprised to find that no surgeon has heretofore attempted to perform the same operation on a child. The youngest patient on record is mentioned in one of Dr. Mott's cases, in which the young lady was nineteen years old.—*Amer. Med. Rev.*

Suture of the Palate. By Nathan Smith, M. D. Prof. of Surgery, in Yale College.—The effect of suture of the lip in partially closing the fissure of the palate, when this deformity exists together with hare-lip, some time since suggested to me the propriety of applying the suture, when the operation is performed at an early period, directly to the palate itself

Every one must have observed that, when in early infancy the suture of the lip is properly made, the gentle pressure which the lip, then more straight than natural, exerts upon the cleft portions of the jaw, has a tendency gradually to approximate them, for at this time the bones of the face being yet in part cartilaginous, readily yield to little force.

Something more than a year since, in the state of Maine, a case occurred to me in which I judged it proper to attempt the more perfect closure of the palate by sutures applied directly to that part itself. I reflected that the parts must at that period (infancy) be so soft as to offer but little resistance to the needle, and so yielding as to be brought, with little force, in close contact with each other. It appeared to me, also, that the closure of the lip would be much more complete by thus bringing the sides of the jaw into their natural situation with respect to each other.

The operation was accomplished with less difficulty than I had anticipated. The margins of the palate were pared with the knife, and a ligature of suitable size, with a needle very much curved, was carried through on one side, a sufficient distance from the margin, and brought back through the opposite. Two threads were employed in this manner, and the parts were brought into contact with very little difficulty. I have not since seen the patient, but have reason to believe that the operation was perfectly effectual.

I have since seen an account of a similar operation performed by an English surgeon.—*Ibid.*

QUARTERLY BIBLIOGRAPHICAL NOTICES.

1. *The Chemist and Meteorological Journal, No.* 1. Edited by JOHN R. COTTING. Published weekly. Amherst, Massachusetts.

This work is conducted upon the plan of a similar publication in Great Britain. It promises to be a useful publication, and we wish it success.

2. *A Letter to the Hon.* ISAAC PARKER, *Chief Justice of the Supreme Court of the State of Massachusetts, containing remarks on the Dislocation of the Hip Joint, occasioned by the publication of a trial, which took place at Machias, in the State of Maine, June*, 1824. By JOHN C. WARREN, M. D., Professor of Anatomy and Surgery in Harvard University, &c. with an appendix of documents from the trial necessary to illustrate the history of the case. Cambridge. 8vo. pp. 142. 1826.

We shall in a future number give some account of the contents of this letter.

3. *A Manual of Chemistry, on the basis of Professor Brande's; containing the principal facts of the Science arranged in the order in which they are discussed and illustrated in the lectures at Harvard University, N. E.* Compiled from the works of Brande, Henry, Berzelius, Thomson and others. Designed as a text book for the use of students, and persons attending lectures on Chemistry. By JOHN W. WEBSTER, M. D. Lecturer on Chemistry to Harvard University. Boston, 8vo. pp. 603. 1826.

Of the general plan of this compilation some idea may be formed from the following statement, which we take from the author's advertisement. —"The basis of this work is the excellent Manual of Professor Brande; it contains all the strictly chemical part of that work, with numerous additions from the best writers on Chemistry. All that part of Professor Brande's work which relates to Mineralogy and Geology has been omitted, its place being supplied by more ample directions for the practical student. In most cases the extracts from other writers have been given without any alteration, except where it was demanded in order to give a greater degree of uniformity to the phraseology."—"The plates will be found to contain nearly all the figures contained in the volumes of Brande and Henry, with the addition of several from other sources, the whole presenting a more complete chemical apparatus than is to be found in any chemical work, with the exception perhaps of Thenard's *Traité.*"

4. *Journal of the Philadelphia College of Pharmacy. Nos.* 1. *and* 2., *for* December 1825, *and May* 1826. Philadelphia, pp. 64. 1826.

See Review.

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5. *Annals of the Lyceum of Natural History of New-York.* Vol. 2. Nos. 1, 2, 3, 8vo. pp. 100. New-York, 1826.

These numbers are exclusively devoted to a Synopsis of the Birds of the United States, by Charles Lucian Bonaparte.

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6. *An Account of the Salt Springs at Salina, in Onondaga County, State of New-York; with a chemical examination of the water, and of several varieties of salt manufactured at Salina and Syracuse.* By Lewis C. Beck, M. D. Professor of Botany, Mineralogy, &c. in the Rensselaer School, 8vo. pp. 36. New-York, 1826.

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7. *Journal de Medecine de Quebec.—The Quebec Medical Journal.* Edited and published by Xavier Tessier, Quebec, Canada. 1826. Nos. 1, 2, 3.

In exchange. This is a quarterly Journal, the publication of which was commenced in January last. We believe it is the first undertaking of the kind which has been attempted in the Canadas, and as such is attended with peculiar difficulties. We sincerely hope, however, that the editor will meet with encouragement sufficient to proceed in his honourable enterprise. In looking over the hospital reports contained in this Journal, we were forcibly struck with the fact that scarcely any cases of pulmonary consumption are recorded, and we afterwards met with the following remarks on the subject, which we think worthy of being copied. They are contained in a review by the editor, of Dr. Crighton's book on tar vapour in consumption.

"We have certainly not as much to complain of the ravages of consumption in this country, as in the midst of those populous cities of Europe, where luxury and plenty have given rise to the devolopement of numberless disorders heretofore unknown. It is a painful reflection when we come to consider that the more nations have advanced towards a perfect state of civilization, the more also they have to deplore the progress of diseases keeping pace with what is now called refined habits and manners. Fortunately for the Canadian people, their climate, and the absence of all those insidious maxims of the age, will long prove an insuperable barrier to the introduction of numerous calamities which have already become the appanage of their continental neighbours.

"We do not mean to advance that our countrymen are entirely free from consumption; indeed we must confess that its frequency in the cities of Quebec and Montreal is an awful testimony of the truth of our assertion, and more particularly when we compare the vast disproportion of diseases which already exists between the population of our cities, and that which is found disseminated over our extensive territory. A consumptive patient, (un poumonique) as they call it, is a case seldom met with in the country, where the population is ten to one in the cities, whilst in the latter it has become already so prevalent, that we can assert with some degree of accuracy, that very near one-fifth fall victims to that dreadful scourge; and it is that consideration which has convinced us of the necessity of inquiring more minutely into the causes which give rise to its propagation, and into the safest means of preventing its introduction. This we shall make the subject of a separate article in some future number."—No. 2. p. 73.

We hope the editor will not fail to redeem the pledge here given. No subject can be more worthy of his best exertions.

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8. *The Ohio Medical Repository.* Cincinnati, August, 1826. Edited by GUY W. WRIGHT, M. D.

This is a well-conducted medical paper, published twice a month, upon the plan of the Boston Medical Intelligencer. We have as yet only received No. II. In it we perceive that Dr. Locke, of Cincinnati, has commenced a series of papers, the object of which is "a description of the western medical plants." We hope he may be induced to continue his labours on this highly interesting subject.

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9. *Medical and Physical Memoirs.* By CHARLES CALDWELL, M. D. Professor of the Institutes of Medicine in the Transylvania University. 8vo. pp. 224. Lexington, 1826. See Review.

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10. *A Treatise of the Maieria Medica and Therapeutics.* By JOHN EBERLE, M. D., &c. In two vols. 8vo. second edition, with corrections. Philadelphia, 1825.

The first edition of this work was published in 1822. The appearance of a second edition in so short a period, is a sufficient evidence of the favor with which it has been received by the medical public. For accuracy of statement and extent of information we look upon it as the best work that has yet appeared in this country on the subject of which it treats.

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11. *Journal de Pharmacie et des Science, accessoires et Bulletin des Travaux de la Societe de pharmacie de Paris.* For January, February, March, April, and May, 1826.

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12. *Elements of Phrenology.* By GEORGE COMBE, late President of the Phrenological Society. First American Edition, with notes, from the second Edinburgh. Improved and enlarged, with two engravings, 12mo. pp. 221. Philadelphia, 1826.

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13. *A Treatise on Diet; with a view to establish on practical grounds, a system of rules for the prevention and cure of the diseases incident to a disordered state of the digestive organs.* By J. A. PARIS, M. D. 8vo. pp. 210. Philadelphia, 1826. Reprinted from the London edition.

14. *A Manual of Chemistry; containing the principal facts of the Science, arranged in the order in which they are discussed and illustrated in the Lectures at the Royal Institution of Great Britain.* By WILLIAM THOMAS BRANDE. The second American from the 2nd London Edition. Three vols. in one. To which are added notes and emendations by WM. JAMES M'NEVIN, M. D. 8vo. pp. 638. New-York, 1826.

We have already expressed our opinion very freely in relation to this American edition of Mr. Brande's Manual, at p. 478 of this number, to which we refer.

INTELLIGENCE.

We are happy to state, that at the anniversary commencement in the University of Pennsylvania, the honorary degree of Doctor of Medicine was conferred on Dr. PETER WENDELL, of Albany, one of the Regents of the University of the state of New-York.

New-York Institution for correcting Impediments of Speech.—An Institution bearing this title, has now been in successful operation in this city for several months, under the superintendence of Mrs. Leigh and a highly respectable member of the medical profession, Dr. C. C. Yates. Having had occasion to be eye-witnesses of several of the cures which have been effected, and having been made acquainted with the theory of Mrs. Leigh, in relation to the cause of stammering and other impediments of speech, we feel it to be a duty which we owe to the public, to express the very high opinion which we entertain of the whole system of instruction adopted in this Institution. The theory of Mrs. Leigh concerning the cause of stammering is, we believe, perfectly original, and the astonishing success which has attended its practical application, proves it to be no less true than original. Most sincerely do we hope that the merit of so important a discovery may not go unrewarded.

New-Hampshire Medical Institution.—This highly respectable Institution constitutes the medical department of Dartmouth College, and continues in a prosperous condition. Its professors are among the most learned and talented men in our country; and though it loses much in the transfer of the professor of Chemistry to New-York, yet we sincerely hope the Institution may sustain itself with undiminished success. The session commenced in September, and we learn that upwards of one hundred students are at present attending the lectures. The officers of the Institution are the following:

Rev. Bennet Tyler, President.
Reuben D. Mussey, M.D. Professor of Anatomy, Surgery, &c.
Daniel Oliver, M.D. Professor of the Theory and Practice of Physic.

James F. Dana, M.D. Professor of Chemistry, Pharmacy, &c.

Josiah Crosby and *Peter Tuttle,* Delegates from the N. H. Medical Society for medical examination.

Montreal Medical School.—We are much gratified to learn the improvement that medicine is making in the Canadas. In another part of our number we have mentioned the commencement of a Medical Journal at Quebec, and we have now to notice the establishment of a Medical School at Montreal. From private information, we learn that it is likely to receive, very soon, a regular charter from the government. The professorships are the following:

Chemistry, Pharmacy, and Materia Medica—*A. F. Holmes, M.D.*
Practice and Theory of Medicine—*W. Caldwell, M.D.*
Anatomy, Physiology, and Surgery—*J. Stevenson, M.D.*
Midwifery, and Diseases of Women and Children—*W. Robertson, Esq.*
Attendance at the Montreal General Hospital, every day at noon.

N. B. Tickets of attendance at the Institution and the Montreal General Hospital, are received at Edinburgh and Paris.

Medical Society of the County of New-York.—At the last anniversary meeting, held in July 1826, the following gentlemen were elected officers for the ensuing year:

Dr. JOHN ONDERDONK, President.
Dr. THOMAS COCK, Vice President.
Dr. JOHN S. CONGER, Treasurer.
Dr. JEREMIAH VAN RENSSELAER, Corresponding Secretary.
*Dr. M. SEARS, Recording Secretary.

Dr. JAMES M. PENDLETON, Dr. J. K. RODGERS, Dr. J. C. CHEESEMAN, Dr. J. B. BECK, and Dr. F. U. JOHNSON, Censors.

Dr. JOHN STEARNS, Dr. JOSEPH HANSON, Dr. A. HAMERSLEY, Dr. J. B. BECK, Dr. DANIEL L. M. PEIXOTTO, Dr. WM. F. SEAMAN, Dr. I. M. PENDLETON, Dr. ISAAC WOOD, Dr. W. HIBBARD, and Dr. W. MURRAY, Lecturers.

* Since resigned, and Dr. DANIEL L. M. PEIXOTTO elected in his stead.

State Medical License.—Candidates wishing to obtain licenses to practice Medicine and Surgery, are informed, that the Censors of the State Medical Society for the Southern District will hold their examinations in the city of New-York. They are requested to apply to either of the censors.

FELIX PASCALIS, M.D.
CHARLES DRAKE, M.D. } Censors.
JOHN B. BECK, M.D.

UNIVERSITY OF THE STATE OF NEW-YORK.

College of Physicians and Surgeons of the Western District at Fairfield, Herkimer County.—The lectures at this institution will commence on the first Tuesday in October next, and continue during the space of sixteen weeks.

Joseph White, M. D.—On Surgery.

Westel Willoughby, M. D.—On Obstetrics.

James Hadley, M. D.—On Chemistry and Materia Medica.

T. Romeyn Beck, M. D.—On the Practice of Physic and Medical Jurisprudence.

James M'Naughton, M. D.—On Anatomy and Physiology.

Fee for the whole course of lectures $54. Board may be had from $1 25 to 1 75 per week.

By order, JAMES HADLEY, Registrar.

UNIVERSITY OF THE STATE OF NEW-YORK.

COLLEGE OF PHYSICIANS AND SURGEONS OF N. Y.

New-York, August 2d, 1826.

The Trustees have the satisfaction to announce that the Honorable the Regents of the University have filled the vacant Professorships in this Institution, and that the College will be opened on the first Monday of November next, by an address from the President. The several professors will then commence their respective courses of Lectures in the following order, viz.

John Augustine Smith, m. d., on Anatomy and Physiology.

Alexander H. Stevens, m. d., on the Principles and Practice of Surgery.

James F. Dana, m. d., on Chemistry.

Joseph M. Smith, m. d., on the Theory and Practice of Physic and Clinical Medicine.

Edward Delafield, m. d., on Obstetricks and the Diseases of Women and Children.

John B. Beck, m. d., on Materia Medica and Botany.

The Trustees are assured that the several courses of instruction will be full and complete, and that the means of illustration will be ample.

The students who have already attended Lectures in this Institution, are notified that the changes which have taken place in the College will not deprive them of any privileges or facilities heretofore enjoyed.

In conformity with the ordinances of the Honorable the Regents of the University, and the laws of the State of New-York, every student is required to attend two full courses of all the Lectures delivered in the College, before he can be admitted as a candidate for the doctorate; unless said student shall have attended Lectures in this College prior to the session of 1822—3, or shall have attended one entire course of Lectures delivered in some incorporated Medical School or University.

The candidate must also have studied three years with some respectable practitioner of medicine, and have arrived at the age of twenty-one years.

In announcing the new organization of the College and its first session in November next, the Board of Trustees believe that the high expectations of the profession and the public will be fully realized, and sustained by the distinguished reputation and talents of the several gentlemen who have been appointed to the respective Professorships.

By order of the Board of Trustees,
JOHN WATTS, Jun. M. D. President.
NICOLL H. DERING, M. D. Registrar.

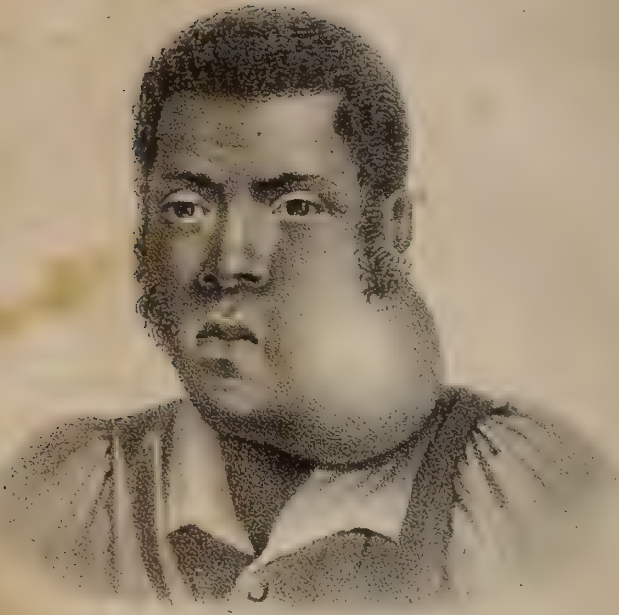
In addition to the foregoing circular we are happy to state, that the Students of Medicine, attending the Lectures of the College of Physicians and Surgeons will be entitled to receive free tickets of attendance upon the practice and operations of the New-York Eye Infirmary. For the benefit of students the surgeons of the Infirmary, Drs. J. Kearny Rodgers and Delafield are in the habit of making practical observations upon the cases which present themselves.

We also have it in our power to state that the Anatomical Museum of the College is at present the most extensive that has ever existed in this city. Besides the former entire Museum of the College, and that of Dr. Post, it embraces the valuable private collections of Dr. Stevens, Dr. J. Kearny Rodgers, Dr. I. Wood, Dr. Cheeseman, and Dr. Delafield, all of whom have liberally deposited them in the College for the use of the Students.

NEW-YORK EYE INFIRMARY.

Doctor Delafield will commence his Lectures on the Diseases of the Eye during the first week in November next. The Lectures will be illustrated by cases at the New-York Eye Infirmary. The holders of the Midwifery ticket in the College of Physicans and Surgeons, will be entitled to attend these Lectures without additional expense.

Erratum.—At page 483, line 1, for *once*, read *one*.



NEW-YORK
MEDICAL AND PHYSICAL
JOURNAL.

VOL. V.] OCTOBER, NOVEMBER, AND DECEMBER. 1826. [No. IV.

ART. I. *Case of Amputation of the Lower Jaw.* By JOHN WAGNER, Surgeon, Member of the Royal College of Surgeons, London, and Teacher of Anatomy in Charleston, South Carolina.—(With a plate.)

ORCHARD, said to be 56 years of age, the servant of Mr. John Jenkins, of Stono, was admitted into my private hospital, in Broad-street, on the 5th of July, 1826, with a tumour on the left side of his face.

He had a robust constitution, and enjoyed good health until 1819, when he had occasion to have the only remaining molar tooth, on that side, extracted; this produced great pain in the jaw, accompanied by a copious hæmorrhage, that continued, at intervals, a year or more. He thinks the jaw was injured, by fracture or otherwise, at the time of extracting the tooth. He first observed an enlargement of the bone in 1821, and its increase has been very gradual, until within the last twelve months. He has suffered irregular attacks of pain in the whole of that side of the face, which, however, were neither severe nor of long duration.

Upon a careful examination of the parts, within the mouth, the inferior maxillary bone was discovered to be very much enlarged upon its left side; and tracing the tumour, with a finger, upon either side, it commenced from the first bicuspis tooth, and extended backwards, beyond the angle of the jaw, to near the root of the condyloid process; then spreading itself, *laterally*, over the alveolar processes, it extended *inwards*, beyond the middle line of the mouth, pushing the tongue and uvula to the opposite side, and closing, completely, the view and passage into the fauces; thrusting itself *outwards*, it projected the cheek, so as to occasion great deformity of that side of the face; rising *upwards*, towards the os malæ, it was elevated fully one inch and a half above the level of the teeth; extending *downwards*, it was spreading under the tongue, pressing upon the side of the larynx, and overhanging the trachea. The breadth of four fingers would scarcely cover its upper surface, upon which a depression was passing through its middle, from before backwards, dividing it into two portions; that on the outer side being the largest and most elevated—while that upon the inner side, though the smallest, was causing most distress, on account of its impeding deglutition and respiration. The internal plate of the inferior maxillary bone could be traced to its angle, by passing the finger between the tongue and the tumour; but it could not be determined, by a similar examination between the cheek and the tumour, if the outer plate was also in a sound condition. The appearance of the tumour, within the mouth, is of a white, cartilaginous, and somewhat granulated nature, having the lining membrane of the mouth, in an altered condition, reflected over it; has an elastic feel, and yields a little discharge, but not offensive; it bleeds for a short time after examination or rough handling, which, also, produces an increase of pain for a day or two afterwards. Its growth has been more rapid during the past year, but is not accompanied by much pain or inconvenience, except the interruption to deglutition, which has increased with the growth of the swelling, so as to render it necessary for him to subsist altogether upon liquid food. The pressure upon the larynx and trachea interferes with respiration, but not so much as to distress him. His voice is very much altered and has a nasal sound.

From so great and extensive a growth, *within* the mouth, we will not be surprised to find a corresponding enlargement of the side of the face, *without*; and, consequently, we trace the swelling from a little below the left eye, depressing its lower lid, and involving the whole of that side of the face, and overhanging the neck, so as to reach to the clavicle, when the base of the cranium is parallel with the horizon. In front it distorted the mouth and nose, and projected backwards to the mastoid process of the temporal bone. The integuments and cheek were healthy and unaltered, and the surface smooth and equal; the absorbent glands, below the tumour, were slightly enlarged.

His general health became impaired as the tumour advanced in size, and he showed some tendency to visceral obstruction by dropsical effusions of the legs and abdomen; on which account I advised a course of purgative and diuretic medicines, before I gave an opinion as to the probable result of an operation. In the course of one week, however, he was so much improved that no doubt remained, on my mind, as to the propriety of removing that portion of the jaw-bone, which was involved in the disease, and on the 13th of July I performed the following operation.

Commencing at the commissure of the lips, I made a simple incision in a straight line, with a scalpel, through the cheek, extending over the masseter muscle to within half an inch of the lobe of the ear; this opened the cavity of the mouth, so as to expose, in its full extent, the whole of the superior portion of the tumour. The upper division of the cheek being raised by an assistant, I began the dissection of the lower lip, from the bone, near to the second incisor tooth, and proceeding backwards, dissected, from the tumour, that part of the cheek and integuments which covered it, upon its side and base; in doing this, it was necessary to raise the insertion of the masseter muscle, so that I could now pass my finger freely behind the tumour and under its base. I next proceeded to extract the cuspidatus tooth, situated in a sound part of the bone, and to divide the bone itself, from above downwards through the socket of that tooth, by means of a small keyhole saw, taking care to avoid injuring the tongue. Then, without difficulty, I separated the divided ends of the bone by drawing towards me the portion connected with the tumour;

this enabled me to prosecute the dissection, with ease, upon the inner side of the jaw, and to separate the tongue and soft palate from the swelling. The tumour being thus detached from its external coverings and its internal connexions, it only remained to divide the bone through its ramus, between the angle and processes, which was done very readily with Hey's saw. The facial artery bled freely at first, so did a branch of the lingual, and the inferior maxillary, as it came out, at the mental foramen; but the timely and dexterous application of the fingers of my friends Doctors Campbell and M'Donald, who very obligingly assisted me in the operation, superseded the necessity of ligatures; and, before the operation was finished, the bleeding from them had ceased. He did not lose much blood, and expressed but little suffering, except when the third branch of the fifth pair of nerves was put upon the stretch, or when it was divided by the knife at the close o· the operation.

I thought it prudent to wait a moderate time before I dressed the wound, to ascertain the state of circulation; and in half an hour, as there was no bleeding whatever, I brought the edges of the wound together, by means of the hare-lip pins (four of which I used) and the twisted suture, interposing a strip of adhesive plaster between them; this constituted all the dressings on the outside; but the loss of substance within was so extensive, and the falling in of the cheek so great, as *to oblige me* to introduce into the mouth a piece of sponge of no inconsiderable size: and upon repeating a liberal dose of laudanum, he was put to bed.

Evening. Cheek very much swollen; has a little fever; does not suffer much pain; profuse discharge of saliva from the mouth, mixed with blood; is able to drink water, which he does frequently.

July 14th. Had a quiet night; slept a little; no fever; discharge of saliva, tinged with blood, continues very great; swelling of the side of the face increased—the ends of the pins pressing upon the soft parts cause some little ulceration, which was, however, relieved by passing a strip of adhesive plaster under each of them; has taken some thin gruel.

which he swallows with much less difficulty than could be imagined.

July 5th. Is doing well; swelling not so great; flow of saliva diminished—removed the sponge; is anxious to be allowed some solid food; ordered to continue the gruel.

July 16th. Swelling very much reduced; union of the parts nearly completed; the pin nearest to the angle of the mouth causing some irritation of the parts, was removed.

July 17th. Swelling continues to subside; wound quite united; removed all the pins; parts to be supported by adhesive plaster for a day or two; has eaten a hearty meal of solid food; is able to chew meat, for which he is very anxious; is walking about the ward, and doing well in all respects; the discharge of saliva is lessened; ordered to cleanse the mouth with a lotion of the tinct. myrrh.

In one week after the operation this man was able to leave the ward, take moderate exercise, and swallow solid food, which he divides upon the opposite side of the jaw, functions which he had not performed for a length of time before. The cheek continued swollen a month or more, but had completely subsided when he returned into the country, about six weeks after the operation. There was no attempt at re-production of bone, nor did I expect it, from his advanced time of life; but the divided end of the jaw was covered by soft parts, similar to the gums; and the whole was healed in less than three weeks.

The tumour, after it was removed, was about the size of a fœtal head at the full time; the bony character of the jaw was completely altered, its earthy parts having been absorbed altogether on its outer side, and very much diminished in the whole course of the inner plate, which, however, could still be traced. The swelling then might be said to be contained within a sac, which appeared to be nothing more than the periosteum of the bone in a thickened state, for it could be traced to the healthy periosteum on the sound part of the jaw. It contained a soft medullary substance, easily broken down with the finger, of a whitish colour, and situated between the septa, apparently answering to the sockets of the teeth. The exit of the artery, at the mental foramen through the periosteum, was very apparent; it was here that the most blood was lost. In this situation all the bony appearance of the jaw was quite removed. The submaxillary and one of the absorbent glands were removed with the tumour.

I cannot dismiss this case without alluding to the very unnecessary hazard a patient is exposed to, who has a ligature applied to the carotid artery before he submits to this operation. The vessels which supply the inferior maxillary bone with blood, are neither large nor numerous, and the increased determination to the part, produced by the disease, can never justify such a step. In prosecuting the dissection of this part, thus enlarged, I feel warranted in saying that, if the knife is properly directed, no other vessels will be divided but those which supply the part with blood. But admitting that large and important branches are cut, by accident or otherwise, will a ligature of the carotid on one side secure the patient from hæmorrhage, especially if, in applying the ligature the day previous to the operation, the vessels have time to enlarge? I think all those who have witnessed the very free and ready passage of the common coarse injections of the dissecting rooms, from one carotid to the other, will answer this question in the negative. Again, besides the unnecessary extension of a very severe operation, endangering the life of the patient, I must say, it is a very unscientific mode of treating the disease, both with a view of lessening inflammation and advancing the cure. I have always been accustomed to consider the necessity of securing a large blood-vessel, in compound fractures of the extremities, as the most untoward circumstance attending such a case; and, surely, the local and constitutional means we possess of keeping down arterial action, are quite sufficient, without cutting off a supply of blood, equal very nearly to one-fifth of the whole system. But I am of opinion, that it is upon the increased arterial action, and consequently no trifling degree of inflammation, that the success of this operation depends; and in the young subject, where we have every reason to look for a complete re-production of bone, I do not think we are justified in crippling the operations of nature, by taking from her the very source of that re-productive power.

In conclusion—the necessities of this case, though of a very extensive nature, did not induce me to make the ligature of the carotid artery, either with a view of diminishing action or of preventing hæmorrhage; of which last, in truth, there was no danger, and that for the obvious reason, no large artery is concerned in the removal of such a tumour: as witness the case operated upon by Dr. M'Clellan, published in the Boston Medical Intelligencer; and Dr. Benjamin B. Simons' case, reported by the Editor of the Carolina Journal of Medicine. In neither of these was the carotid tied, nor was there any bleeding to produce alarm; and, in both of them, there was such a re-production of bone as to sanction the idea that the jaw would, in time, be again perfect in form, if not in function also.

Broad-street, September 23d, 1826.

ART. II. *Account of several Cases of Inflammation of the Larynx and Trachea.* By SAMUEL WEBBER, M.D. of Charleston, New-Hampshire.

HAVING about a year and a half since met with a number of cases of inflammatory affections of the larynx and trachea, constituting an epidemic of very limited locality, I thought that an account of them might not be unacceptable. In connexion with it, I have written a few remarks that occurred to me while employed upon the subject, and which have been still further confirmed by cases occurring in the beginning of the year 1826.

Laryngitis, like most other inflammatory affections, seems to admit of a division into three varieties, according to the severity and rapid progress of the symptoms, viz.—sub-acute, acute, and per-acute.

Sub-acute laryngitis is what is commonly called a hoarse cold, denoted by a feeling of fulness and constriction in the throat; and, in light cases, a harshness and unevenness of voice, accompanied with a diminution of its volume and intensity, and a greater gravity of tone ; while, in more severe cases, it is subdued to a whisper, without the patient's possessing the power of speaking in a louder key, unless at times with great exertion, and then the voice is shrill and small, and the effort to utter it so painful as often to bring tears into the eyes. In these last there is also a slight feeling of soreness in the larynx upon deglutition, which is wanting in the former, and sometimes a little uneasiness or pain in addition to the sense of fulness. The breathing, however, is unimpeded, or so much so as not to attract the patient's attention ; and the constitutional affection, if any, is slight, unless, as is sometimes the case, the mucous membranes of the throat, nostrils, or bronchia, participate in the affection. After four or five days, sometimes much less, a tickling is felt in the throat, producing a fit of coughing, resulting in the rejection of a small portion of opaque inspissated mucus ; by this the feeling of fulness and constriction is lessened, at least for a time, and the voice is permitted to be uttered in a more natural tone. These fits of coughing take place several times in a day for a few days ; the relief produced by them becoming more marked and permanent, until all the symptoms finally disappear. When the inflammation extends to the mucous membrane of the bronchia, the cough is present almost from the first of the attack, is more frequent and longer continued and the expectoration is more profuse.

In two or three severe cases of this variety, which have fallen under my observation, the matter first rejected by coughing had the appearance and tenacity of coagulated lymph, and two or three of the fragments were very exactly of the size and shape of the arytenoid cartilage, appearing as if a deposite of this lymph had been made upon the mucous membrane lining the inner surface of these cartilages. The relief given to the utterance by the rejection of these substances was very striking. In the same cases the matter last rejected had something of a purulent appearance, though more tenacious than true pus.

In this variety the inflammation seems to be confined to the mucous membrane, or the cellular tissue beneath it. It does not usually fall under the care of a physician, generally going off in a few days, as has been mentioned, with the aid only of warmth, diluent and demulcent drinks, and such like remedies as almost every matron feels qualified to prescribe; though in some severe and protracted cases I have been called upon, and have pursued, in some measure, the course hereafter mentioned under another variety.

Acute laryngitis begins with the same symptoms which characterize the sub-acute form, though the pain and soreness, and the difficulty of swallowing, soon become much increased. In a very able essay on this complaint, which appeared in a former number of this Journal, written by John B. Beck, M.D. it is mentioned that there is frequently a slight sensation of soreness in the fauces, and that upon examination they will sometimes be found covered with a slight inflammatory blush. This appearance I have noticed, but the pain and soreness were at once stated by my patients to be in the region of the larynx, extending downward in the course of the trachea. After these symptoms have lasted a day or two, in the course of a few hours they increase greatly in violence, and the breathing becomes impeded. This last symptom soon becomes very prominent, having occasional exacerbations threatening suffocation, and frequently brought on by an attempt to speak, which is highly difficult and painful. These exacerbations become more and more severe, until suffocation actually takes place and destroys the patient. The constitutional affection is often not more severe than in the preceding variety.

The inflammation in this form of the complaint seems to extend to the larynx itself and the adjacent parts, and it is probable that the exacerbation is occasioned by the spasmodic action of the muscles moving the arytenoid cartilages, similar to the spasmodic action that frequently takes place in muscles labouring under rheumatic affections.

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* New-York Med. and Phys. Journal, vol. 3. p. 397.

nial emetic ordered in case of a recurrence of the difficulty. It, however, proved unnecessary; the calomel produced considerable languor and depression for several hours, but at length moved the bowels freely, and the patient appeared much better. She seemed to require no further medicine more than a gentle purgative, and was soon quite well.

Case 3. My son, an infant one year old, was observed in the morning to be quite hoarse, and to have a short barking cough; otherwise he was well and playful. At noon, I found he had become quite hot and restless, though appearing drowsy; the cough was more frequent and severe; the respiration quick and hoarse, and there appeared to be some soreness in the throat. Two grains of tartarized antimony were dissolved in twelve tea-spoonfuls of water, and a spoonful given every ten minutes, till vomiting took place, which was not till after the fifth spoonful. He vomited several times, seemed greatly relieved, and fell asleep. In the evening, some difficulty of respiration still remaining, two spoonfuls more were given with an interval of two hours. Vomiting was again produced. He slept pretty well during the night; and, with the aid of a small quantity of the solution as an expectorant, recovered entirely in the course of a few days. His diet, during the sickness, was changed from milk to thin gruel.

Case 4. Dec. 31. In the evening I was called to Miss C. D. a young lady of 23. I found her complaining of soreness and pain in the larynx and trachea; the voice was very much suppressed; deglutition was painful, and she had some headache, and a furred tongue; the pulse was very little accelerated; she had had a slight cough for two or three days. As her health was slender and emetics distressed her very much, I thought I would endeavour to avoid them, and gave her six grains of calomel, one grain of ipecac. and half a grain of opium, to be taken at bed-time, the feet having been previously soaked in warm water, and ordered half an ounce of Epsom salts to be taken early the next morning: I was called to her as soon as it was light, and found her complaining greatly of distress at the stomach and nausea; the throat, however, was much easier than on the preceding evening, and she had slept well. An emetic of ipecac. was given, which operated favourably though painfully, after which the calomel operated, and by night she was much better, except the cough; to quiet this, a grain of extract of conium was given, and with it four grains of the blue pill, to be taken at bed-time, and worked off with Rochelle salts the next morning. These remedies operated very favourably, and the amendment was so great as to render more medicine unnecessary.

Case 5. January 1. About four in the morning, I was called to Miss E. A. a girl of ten years, who was supposed to be labouring under a severe attack of the croup, a disease which she had experienced two or three times formerly. She had complained slightly, the evening before, of cold and soreness in her throat, and was a little hoarse. She went to bed about nine, and was observed, by a person who slept in the same room, to be very restless, frequently turning and tossing about, breathing short and heavy, and giving occasionally a short cough. These symptoms continually increased till the time mentioned, when respiration had become painful and stridulous; the cough frequent and shrill, like barking; the general uneasiness great, with some feverishness, and the pain and soreness in the throat much more severe. An emetic of tart. antimon. and ipecac. was given, which produced great nausea and some retching, though not free vomiting; it however puked her three or four times, after which she became easier and fell asleep. Between 8 and 9 in the morning I saw her again, and found the symptoms still remaining though much mitigated; the pulse 95; the tongue slightly coated, and the skin hot, though moist on the palms of the hands. She then took six grains of calomel. At 12 found her better as to the disease, but suffering much from nausea, with frequent attempts to vomit. The bowels had been moved once, but slightly. A dose of ipecac. was given; after the operation of which, she was ordered to take six grains more of calomel, to be followed in two hours by a dose of sulphate of soda. At 5 P. M. I saw her again. The ipecac. had been rejected as soon as swallowed, and likewise two or three draughts of warm water taken after it; after this the stomach had been quiet till the salts were taken, which were soon rejected; the bowels had not been moved. Some symptoms of the complaint still being present, five grains more of calomel were administered. The remaining traces of the disease disappeared in the course of the evening, and she slept pretty well at night, though the nausea still continued when she was awake. The calomel, however, did not operate upon the bowels, which were not moved till the next afternoon by repeated doses of infusion of senna and manna. A pretty severe salivation, which lasted a fortnight, was the consequence.

Case 6. January 1. E. P. a fine stout looking girl of 24, had been troubled for two or three days with a hoarse cold, which had this day become much worse, so that her voice was much suppressed, and she complained of great soreness and uneasiness in the region of the larynx and down the trachea, with slight difficulty of breathing, though none of the spasmodic exacerbations had as yet taken place. The head ached; the tongue was furred; the pulse 85; and the skin dry. She took an emetic of tart. antimon. and ipecac. combined with a few grains of calomel. This operated well, and, as she said, relieved the uneasiness entirely, so that I did not prescribe any further medicine. Next morning, however, I was called to her again, and found that the difficulty of breathing had returned in the night, with occasional exacerbations, during which she was obliged to sit up in the bed on account of the sense of suffocation attending a recumbent posture; the hands were cool and slightly moist; the head painful; and the pulse 100, but irregular and not hard. A large blister was immediately applied over the whole front of the throat, and a solution of two grains of tart. antimon., in 12 table spoonfuls of water, was prepared, of which she was directed to take one every two hours, unless the suffocative exacerbations returned, when it was to be taken so as to produce vomiting; an ounce of Rochelle salts was directed to be taken with the first spoonful. This dose operated very freely, both as an emetic and cathartic: after which she continued comfortable through the day, and at night breathed easily, had a slower pulse, less head-ache, and appeared much better.

In the night she had a slight return of the difficult breathing, which was promptly relieved by a tea spoonful of the antimonial solution. After this she rapidly recovered, without any other medicine than minute expectorant doses of antimony and a gentle laxative.

Case 7. R. H. a boy of nearly the age of my son, was attacked in a similar way on the 2d of January. The attack was not quite so severe, and was readily dissipated by an emetic and a few doses of antimonial solution.

Case 8 E. P—n, a girl about 20, after labouring several days under a bad cold and cough, with a soreness of the throat about the region of the larynx, which did not prevent her pursuing her usual employment, on the 10th of January became suddenly much more hoarse, with an increase of the pain and soreness in the throat. These symptoms increased in the course of the forenoon, and at noon the breathing became difficult, with a feeling of suffocation; the pulse was 85. An emetic of tart. antimon. and ipecac. was then given, which operated well and produced much relief. I saw her again in the latter part of the afternoon: the symptoms were still severe, though less than on my former visit. A large blister was applied over the throat, and a sixth of a grain of tart. antimon., with ℥j. of sulph. soda, was given; this operated very powerfully as an emetic, and moved the bowels freely. At 11 P. M. the complaint was greatly relieved, but the vomiting continued when any thing was taken into the stomach. I gave her a few drops of tinct. of lavender and of laudanum, and ordered a little of the infusion of peppermint to be taken occasionally. In the morning I found her still better, the sickness was gone, and she had slept some. A laxative and one or two nauseating doses of antimony completed the cure.

Besides the above cases, there were one or two others beginning in a similar manner, which were arrested at an early period by an emetic, which I furnished without my personal attendance being required. There were also a number of instances of the sub-acute variety about the same time, but which did not require medical aid.

It is worthy of remark, that all these cases, except the 3d and 7th, happened to females, though males are generally considered most liable to the disease. Three cases, the 1st, 6th, and 8th, were very severe, and when I was first called, threatened great danger if the disease then forming should not be broken up. The 4th, though well marked, was seen at an earlier stage and arrested before the most alarming symptom had shown itself. The 3d, 5th, and 7th, bore a greater resemblance to croup than to well defined laryngitis, and must be considered such, if we hold strictly to the common opinion that laryngitis is peculiar to adults. My own belief is, that the two diseases are essentially the same, and merely modified by the changes of structure that take place in the organs of speech at the age of puberty, which renders the larynx more peculiarly the seat of the inflammation in persons that have passed that period of life. In confirmation of this it may be remarked, that all the adults complained of pain and soreness in the trachea as well as in the larynx, though not so severe, that in two of them who had a cough from the first, it assumed somewhat of the shrill ringing sound of the cough in the croup; and that in the two cases where the patients were under the age of puberty and above that of infancy, the voice was affected very perceptibly, though not so much so as in the other. Besides, I have seen it mentioned that dissection has shown that in some instances of laryngitis, the disease has been found to have extended to the lungs.

From all that I have seen and read of these diseases, I cannot but think, that though there may be cases of inflammation of the larynx not extending to the trachea, and of the trachea not embracing the larynx, yet that these are rare; and that both, in general, participate in the affection, though from the difference in the comparative volume, vigor, and tone of the vocal organ, at different periods of life, the weight of the disease is more prone to fall upon that organ at one period than at the other.

Another circumstance that struck me as singular, was the extreme irritability of the stomach in these instances. In no case was I under the necessity of repeating the emetic in order to induce vomiting; and some hours after the first vomiting was over, it was again excited with some severity by doses that commonly would have failed to excite much or any nausea.

All the cases occurred within a quarter of a mile of each other, and six of those narrated, in two families only.

ART. III. *Contributions in Medical and Surgical Practice.* By JABEZ W. HEUSTIS, M.D. of Cahawba, Alabama.*

CASE I. *Stricture.*

A SON of Mr. C. No 47 Oak-street, about 11 years of age, was taken on Saturday the 8th of February, 1817, with suppression of urine. As he had not evacuated urine, except in small quantities, I was called on Monday the 10th. Upon introducing the bougie, found considerable resistance, evidently from the existence of two strictures; one of which appeared to be situated about three inches from the extremity of the penis, and the other at the bulb. Upon overcoming the first resistance, the urine flowed in a small stream, and the bladder was, in this way, evacuated. Ordered him to be kept warm.

Tuesday 11th. In the morning, found him comfortable; had made a little water in the night; did not introduce the bougie. At night, the bladder had become much distended, and I again introduced the bougie. Ordered warm tea.

Wednesday 12th. Had passed the water pretty freely, so that there was no occasion for the instrument.

Thursday 13th. I was sent for in great haste; had passed no urine scarcely for the last twenty-four hours; bladder very much distended; found great resistance to the introduction of the catheter. Upon overcoming the first stricture, the water was evacuated. I suffered the bougie to remain all night. In the morning, found that the urethra had contracted so firmly about the bougie as not to allow the latter to be removed without great violence. I, therefore, desisted, and ordered him to be put in the warm bath. Whilst in the bath the passage became so much relaxed that the bougie was withdrawn without much difficulty. Then put him to bed and gave an injection of an infusion of tobacco, in the quantity of three or four tea-spoonfuls. In four or five minutes it had such a violent effect, that it made him deadly sick. Gave an injection of salts and molasses and water, for the purpose of bringing away the tobacco. The symptoms of debility were extreme, and the pulse scarcely perceptible.

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* Author of "Observations on Louisiana," and "A Treatise on Fever."

Friday 14th, evening. Bladder much distended; had passed no water since the introduction of the bougie; passed the instrument but partly, through the stricture on account of the straightness of the passage. Ordered 50 drops of nit. ether and laud. in proportion of one part of the latter to six of the former, to be given to him at bed-time.

Saturday 15th. General health much the same, and but little impaired; appetite pretty good. Used the warm bath; upon coming out of which, I injected infus. nicot. into the urethra, and was then able to pass the bougie. Before putting him in the bath gave him a nauseating dose of tart. ant. and a pill of opium and soap. Repeated the bath in the evening, the nit. ether, and the nicot. injection, but could not pass the bougie, though a small probe was introduced through the stricture. Let him have a pill of opium and soap at bed-time.

Sunday 16th. Found the penis much inflamed; passed a small probe and drew off the water; directed the application of a poultice to the part. In the evening the inflammation had increased; directed the poultice to be discontinued. I should previously have mentioned, that the infusion of tobacco on Saturday the 15th, in the quantity of nearly one small syringe full, in about two hours, brought on an alarming degree of relaxation and debility, so that the patient could scarcely articulate in a whisper, and lost all power of motion. They sent for me in great haste, saying, that their little boy was dying I went and found him in the situation described; directed some warm mixture to relieve the sickness of his stomach, for he had been much harassed and exhaused with vomiting—(I should also have added, in addition to the nicot inject. he had also taken 60 drops of sp. nit. and laud. which still further increased the effect)—In a little time he seemed to be relieved of his deadly sickness, and I went home. The remaining portion of Saturday night was passed in great suffering, in bearing down pain, inclination to make water, and screaming.

Monday 17th. Inflammation not quite so high; has kept warm cloths, wet with lead water, applied to the parts; passed the probe with difficulty; called for Dr. Mott; we went there about 5 o'clock; I attempted to pass the probe, but found it impracticable from obstruction of a hard solid substance that filled and distended the passage. Dr. M. took the probe and pronounced the existence of a calculus. It was close to the extremity of the penis, but so large that it could not be got out after numerous and patient trials. The extremity of the urethra was then split up, and a calculus about the size of a mulberry extracted.

CASE II. *Dropsy.*

Cahawba, Ala. Mrs. B. æt. 22, had been affected with ascites for about 9 months; had been under the care of Drs. Meux and Gantt, but experienced no permanent relief. When I saw her, she was very much swollen in the body; feet and ankles anasarcous; pulse frequent, but soft; no fever; appetite irregular and sometimes excessive; menses suppressed; unable to rise from the bed without assistance, but, when up, can walk across the house; is frequently troubled with a cough sometimes attended with spitting of blood, probably from the pressure of the water upon the diaphragm and thorax. Put her upon the use of digitalis and squills, &c.—gave from three to six grs. digitalis daily, which produced a remarkable diminution in the frequency of the pulse; gave vinegar of squills, saturated with sal. nit.—took a tea-spoonful twice a day; took calomel so as to affect the mouth; gave muriated tincture of iron, 12 drops, two or three times a day, with great benefit; gave also, at first, two or three doses of jal. and cream tart. In about a month she was entirely relieved; and during the session of the legislature, not six weeks from the time I saw her, she attended a ball in Cahawba, and took a part in the dance. This was in the latter part of the fall and beginning of the winter of 1821.

Case III. *Hydrothorax and Fever.*

Squire M'L——d, æt. 55; was called to see him April 6th; found him afflicted with shortness of breath; œdema of the feet and legs; pale, bloated, and sallow; great beating of the carotids; pulse frequent and hard; skin dry and hot; sickness and vomiting in the morning; often starts in his sleep, with a sense of suffocation; integuments of the thorax swollen. I was at first of the opinion, that his fever and quickness of the pulse proceeded merely from debility, and that moderate tonics might, perhaps, prove serviceable, if combined either with diaphoretics or diuretics. For this purpose I gave the tinct. ferri muriat., sp. nit. dulc., digitalis, and squills, and calomel and sarsaparilla. Upon my next visit, three days afterwards, I gave him an emetic, which brought up nothing but some mucus. Fever still continued.

Sunday, May 12. Found that his fever had rather increased. I accordingly resolved upon taking away some blood; about half a pint, or rather more was drawn, which looked very pale and watery. I left for him two doses of calomel and jalap, with orders to take one in the morning. I at the same time ordered the tinct. ferri, digitalis, squills, nitre, and sarsaparilla, to be discontinued. I was then absent from home till the 15th.

15th. I was told, when I reached home, they had sent for me twice, with information, that Mr. M'L——d was dying—that his extremities were cold, &c. I hastened to see him, apprehensive that the cathartic had operated too severely and produced prostration. I found him comatose and quite insensible, not attending to any object; his fever was high; the carotids beat violently, and his skin was hot and dry. The blister that had been applied to his breast had produced a serous and bloody effusion; his head was much affected, and I was apprehensive that water had been effused into the cavities of the brain. I now treated him upon the principle of subduing his fever and removing the dropsical affection. I left him powders, composed of about 12 grs. of nitre, 1 of calomel, and 2 of antimonial powder, to be taken every three hours, and for his constant drink, cream of tartar and water; about every other day I exhibited a powerful dose of jalap and cream of tarter—giving, at the same time, sp nit. dulc. and ammon. every three hours. Under this treatment his febrile symptoms gradually disappeared. During the remissions of the fever, which were inconsiderable, I directed him to take the bark. Under this treatment, in about six weeks, his fever and dropsical symptoms had left him, and his mouth had become quite sore from the use of calomel. I then put him upon the use of tinct. ferri, but directed him to continue the cream of tart. drink, though not so freely as formerly.

August 31, 1822. I understand he is now quite recovered. He still remains in good health—Sept. 22, 1826.

Case IV. *Enlargement of the Spleen.*

J. B. H. had been for three or four years affected with an enlargement of the spleen, occasioned by fevers from attending crops on the river lands in Georgia. The spleen had increased from year to year, but had become peculiarly large and uncomfortable for the last twelve months. He had been under the care of a number of Physicians, but had received no benefit; the complaint still continuing to increase.

I visited him August 13, 1823. I found him much emaciated, with a sallow countenance; œdematous feet; abdomen much swollen; pulse tense, though not much increased in frequency. Upon examination I ascertained that there was a considerable collection of water in the abdomen, which could be perceived fluctuating between the spleen and abdominal integuments. For the last three or four months he had been taking calomel, and using mercurial frictions to the abdomen, until the mouth became affected, and then taking cal. and sulphur, together with some bitter herbs in whiskey, of which he was directed to take a wine glassful three times a day. Under this treament he grew rapidly worse, became more emaciated, enfeebled and dropsical. I put him upon the use of digitalis, 6 grains a day, and cream of tart. for constant drink, and nit. acid, 25 drops, three times a day.

On the 19th, to be nearer to me, he came to town, when, in addition to the nit. acid, I gave him vinegar of squills, saturated with nitre, a tea-spoonful three times a day, and cal. about 3 grains daily.

On the 20th, I found that the digitalis had produced considerable head-ache, sickness, and stupor, and ordered it to be discontinued. The nit. acid sickened him in the quantity of 30 drops, ordered him to reduce it to 25. Under the use of the digitalis and nit. acid, he found, for the first few days, his strength considerably improved.

On the 21st, I gave him a dose of cream of tartar and jalap, of cream tart. 1 ounce, jalap 40 grains; having first ascertained that a smaller dose was not sufficient.

August 22. Complained of being more weak. Continued the medicine, with the exception of the digitalis.

August 23. Felt tolerably well this evening. Perceiving hardness of the pulse, I took away about six ounces of blood, which was tolerably rich and very sizy. The mercury begins to affect the mouth.

Sept. 25. Has considerably improved under the above treatment. The spleen is much diminished; the dropsical swelling has subsided; his feet have ceased to swell; he discharges about twice the quantity of water that he did in health; the urine is much lighter coloured; his appetite improved, and what he eats sits easy on his stomach. For the last week I ordered him to take the digitalis, 2 grains three times a day; the squills and nitre, twice a day; a dose of cream of tart. 1 ounce and jalap 40 grains; the mercurial frictions, and exercise on horseback. When first I saw him, he could not sit up more than an hour at a time; he can now ride with ease fifteen miles in four hours, and walk without fatigue, nor is he under the necessity of lying down in the course of the day. To the astonishment of all, this man was restored to health.

Case V. *Fracture of the Skull, with the loss of a portion of the Brain.*

On the 21st of September I was called to visit a negro boy, aged about 14, belonging to Mr. T. residing about five miles from Cahawba. The preliminary history of the case is as follows :—On the preceding night this lad, in company with some other negroes, had been out hunting opossums by fire-light. Having found one of these animals in the top of a tree, they commenced cutting it down. Intent upon the object, they paid but little attention to the situation of the boy. Suffice it to say, that the tree in falling struck the lad upon the head, and laid him senseless and motionless upon the earth. Being at some distance from home, he was not removed until the next morning. I saw him about 10 o'clock A. M. of the same day. He was in a state of torpor and insensibility, nor could he be roused to the least attention ; his body was cold, and his pulse feeble ; the upper eye-lid of the right side was much swelled, so as entirely to close the eye ; and there was a puffy tumour, with a circumscribed hardness, about the middle of the left parietal bone. Finding that the force of the blow had fallen principally upon this point, I cut through the integuments and muscles, down to the skull. A fracture and depression were now evident. I followed the course of the fissure with the knife, running partially across the left parietal bone, crossing the sagittal suture, taking in an angle of the right parietal bone, and then crossing the os frontis diagonally to the external angle of the right eye. To gain a greater freedom of access to the injured parts, I made another incision at right-angles with the first, and dissected up the flaps sufficiently to operate with facility upon the fractured skull. There was an irregular depression of the left and right parietal bones, including a portion of the os frontis near the commencement of the fracture, nearly the size of half a dollar ; from this the fracture extended in a fissure to the orbit of the right eye, which, together with the os frontis, was bursted open nearly half an inch in width, the membranes of the brain above the orbit were broken, and a portion of the brain, together with blood, was discharged upon making the incision, and the brain continued to protrude through the fissure at every pulsation during the operation. In order to remove the fractured pieces, and to elevate the depressed portions of the parietal and frontal bones, the trephine was applied in two places. During the operation the boy discovered no consciousness, except when the inflamed and swollen integuments of the forehead were cut through. The whole extent of the fracture was about eight inches in length. Having removed the broken pieces and the sharp angles, I brought the integuments together by means of adhesive straps, and applied the necessary dressings and bandages. I directed cream of tartar dissolved in water for his constant drink, and on the ensuing morning gave orders for the exhibition of a dose of castor oil. On the 23d, two days after the operation, I visited him again. His consciousness had, in some degree, returned, and he had spoken once or twice. On the sixth day the dressings were removed. In about eight days from the operation he was able to sit up a little, and in a month more was perfectly recovered. He is now (Oct. 5, 1824,) a fine healthy negro, and the openings in the bones of the head, produced by the operation, have closed over with new bony matter.

CASE V. *Amputation of an Inflamed and Sphacelated Arm.*

In the month of August, 1823, a man by the name of J. B., a labourer, given to intoxication, was concerned in moving a house. In bringing the building to its place, his fore-arm was caught between the foundation and the sill of the house. The muscles upon the inside of the arm, the portion caught, were partly separated from the bones, and mangled and lacerated in a shocking manner. He came under the management of another physician, who, about the third day after the accident, called upon me in consultation. The arm was much inflamed above the elbow and somewhat swollen; an offensive sanies was discharged from the sloughy and mangled surface of the fore-arm, and gangrenous vesicles were rising upon the integuments. Even at this stage I deemed an operation hazardous, but yet I considered it his only chance. I was persuaded that, instead of the mortification stopping at any definite point, and forming a line of demarcation between the sound and diseased portions, the extent of the injury would cause the gangrene to extend to the body, and terminate in the death of the patient. The attending physician, however, delayed the operation until the next day, when I was again called upon. The arm was now still worse and more offensive than it was the day before, and the inflammation, swelling, and incipient mortification, had extended nearly to the shoulder joint.

The arm was now taken off high up. The integuments, on the under side of the bone, had become green, from the spreading of the gangrene. The wound, after the operation, was dressed in the usual manner. Upon partially removing the dressings on the third day, it was found that mortification had attacked the stump, which was now dressed with the bark and charcoal poultice, and the patient put upon the use of bark and wine. Under this treatment the mortified portions of the integuments and muscles sloughed off in a few weeks, and the man recovered.

This case shows that operations may be performed on parts in a high state of inflammation, and even of incipient mortification, without proving fatal. In large limbs, as the legs and thighs, the operation, under these circumstances, might be more hazardous and uncertain.

Case VI. *Bronchotomy.*

On the 6th of January, 1826, I was called to see a child of three years of age, which was represented as being in a dangerous situation and not expected to live, from having, about a week previously, accidentally been choked with a grain of corn. As it was late in the evening, on the 5th, when I was sent for, and the person lived twelve miles distant, I did not go until the next day.

When I arrived I found the child suffering under the symptoms described by systematic writers as characteristic of the presence of extraneous substances in the trachea. The respiration was rattling, the breathing short, and often laborious, with frequent and distressing paroxysms of coughing. I stated to the parents, that there was no other chance of relief but from an operation; and sensible that the child could not survive in its present situation, they, at length, consented to the painful alternative. The little girl was extended on a table, and properly supported by assistants at the head and extremities; the head was suffered to fall back a little over the edge of the table, and kept steady and secure in that position. In a child of that age there is but little choice of situation, I therefore commenced my incision upon the prominent part of the *thyroid* cartilage, extended it upwards and downwards through the integuments about an inch and a quarter, which was as far as the parts would admit of the incision being safely made; and in doing this, I at one time found myself very much incommoded by the blood, which gushed with considerable violence from a divided vein. This I secured with a ligature, and proceeded cautiously with the operation, checking slight hemorrhages by the temporary application of a soft rag wet with a solution of sulph. zinc. Having exposed the windpipe, I carefully made a longitudinal incision with the point of the scalpel, extending it in both directions as far as the external opening would permit, which might, probably, be about half an inch. The incision and opening being completed, and the foreign body not presenting itself at the orifice, in the trachea, which I kept open as well as I was able with the edge of the spatula and probe, I introduced the probe into the windpipe and endeavoured to seek for the extraneous substance, but without success. I then introduced the director, and pushed up its extremity above the opening of the glottis. Not being able to discover the grain of corn, I dressed the wound with lint and unguentum simplex, and had the little patient conveyed to bed. For a while it appeared to be considerably relieved, and I was induced to believe that the offending substance had been removed. I remarked to the friends, that it was either removed, or had fallen so low in the windpipe as to be beyond the reach of any instrument that could be properly introduced. As the breath passed principally through the wound, the grain of corn, if it had not been removed, would in a short time be forced through the opening. It was, however, two days after the operation before the grain presented itself at the wound, and was removed but little altered by its long continuance in the windpipe. It was somewhat softened and swollen, but showed no appearance of vegetating. It is almost unnecessary to say, the little patient entirely recovered; the wound gradually healing, by filling with granulations, and in little more than a fortnight was entirely closed.

Remarks.—Though I do not find the remark made by surgical writers, the presumption is, that a wound caused by the operation of bronchotomy never closes by the first intention. Adhesive plaster is of little avail in keeping the new opening closed, and sutures appear to be equally ineffectual, as the whole force of the breath, in expiration, is principally directed to this new opening. The weakness of the voice, and this unnatural artificial air-hole, through which the breath, froth, and serous matters, are constantly discharging, are apt to alarm the fears and excite the sympathies of relations and friends; but as there is but little danger from an operation of this kind, the surgeon may safely assure them that the operation alone, should it not prove successful, can have no effect in causing the death of the patient. It is a little remarkable, that this grain of corn should have remained so long in the windpipe without proving fatal. The symptoms in cases of this kind are often so severe and urgent that, unless the extraneous substance should be expelled by the effects of coughing, (an occurrence that seldom takes place,) or removed by an operation, strangulation, exhaustion, and death speedily ensue. Here, however, we have an instance of a bulky substance, a large grain of Indian corn, remaining in the trachea of a small child eight days without producing death. I have known cases, however, still more remarkable; for instance, watermelon-seeds remaining in the windpipe several weeks, and even months, causing all the symptoms of phthisis pulmonalis and producing suppurations, at length expelled with the expectorated matter, the patient then recovering. If it be asked, why bronchotomy was not performed? I might say, that, in one instance, the cause was not known, and in the other, the parents would not consent. I knew a little girl that for several months was excessively harassed with a most distressing cough, rattling, wheezing, and difficult respiration, so that death, at last, was daily expected as the only refuge of the little sufferer. At length, one night after a severe paroxysm of coughing, it was discovered that something had been coughed up, which, upon examination, was found to be a feather that had been sucked into the windpipe with the breath. The feather was nearly two inches in length, but it had remained so long in the trachea that most of the plumage was worn off and decayed, and but little besides the stock of the feather remained. It is probable that more persons, and particularly children. die from causes of this nature than is generally imagined; for, although to the experienced practitioner there is little difficulty in ascertaining the existence of this affection, yet with others it is not so; and, unless the child itself or the family know the fact, the complaint may remain unknown, and the patient die with some other supposed disorder, as the croup, or inflammation of the bronchiæ.

ART. IV. *Case of successful Extraction of the Astragalus after Compound Luxation.* By ALEX. H. STEVENS, M.D. Professor of Surgery in the University of New-York. Drawn up by ELIAS J. MARSH, A.B. of Amboy, N. J.

A STOUT young black fell with a hod on his shoulder, by the giving way of a scaffold, from a height of fifty feet, and which caused a compound luxation of the astragalus inwards. Being immediately conveyed to the New-York Hospital, he had a cordial draught, and Dr. Stevens found him an hour after the accident trembling and agitated, but with a warm skin and good pulse. He lay upon his back, with his left leg strait and resting on its outer side. The integuments and capsular ligament, over the inner side of the ankle-joint, were rent, and the surface of the astragalus, which articulates with the os culcis, occupied and rather protruded from the centre of the wound.

Dr. Stevens passed his finger into the wound, over the tibial [upper], now become the fibular [outer], aspect of the astragalus; and by hooking it around the bone, and at the same time pressing upon the posterior edge with his thumb, endeavoured to turn it on its axis in a direction contrary to that in which it was luxated. Finding this manœuvre impracticable, he tried next to pull out the bone, but it was firmly fixed, and admitted of very little motion in any direction. Extension was made upon the foot, by drawing down the heel and instep, while the leg was flexed upon the thigh. These efforts, like the preceding, being unavailing, Dr. Stevens immediately removed the bone. The scaphoid end was brought out foremost. The poor fellow cried out with pain when the bone was pulled, more than during the division of the ligaments with the knife. Not more than an ounce of blood flowed from the incision. Upon a minute examination of the bone, the processes to which the ligamentum inter fibulam and astragalum posterius, and ligamentum fibulæ anterius are attached, were found broken off. The limb was laid flexed on its outer side on a splint suitably covered with tow and a pillow beneath it. The edges of the wound were dressed with lint, and a roller rather loosely applied around the foot and leg, including the splint.

Half an hour after the operation he was more comfortable than before it was performed. His pulse slower, and febrile re-action taking place, cream of tartar was ordered. In the evening he became more excited; he was bled by Dr. De Lima, the house surgeon, and was ordered, while awake, half an ounce of the acetate of ammonia every two hours, cream of tartar water continued.

2d day. He has passed rather a restless night; had one severe twitching in the limb, which, however, is not at all displaced: his bowels have been freely moved: complains of stiffness in the sore; pulse 112. Lemonade in lieu of the cream of tartar solution, and at night a full dose of Dover' powders.

3d day. The leg above the wound was covered with cold lead water; the other remedies continued.

4th day. The symptoms have gradually been increasing in severity; pulse 120; tongue dry and white, with a brownish stain in the centre; was delirious last night, and slept little, on account of the constant twitching of the leg.

5th day. Had his bowels opened by medicine; some fetor in the wound; a poultice of bread and milk applied, and the dressings changed.

6th day. Febrile symptoms subsided; medicines discontinued; arrow-root ordered.

13th day. Has taken chicken soup; is much more comfortable than at the last report; complains of soreness near the outer ankle; a deep ulcer, apparently communicating with the joint, is discovered behind the fibula, and the leg is placed in an extended position on the heel, between two splints, each having a foot-piece, and simple cerate is applied to the wound instead of the poultice; allowed some ale.

22d day. Much recruited; the matter has made its way along the tibia; the limb is placed in the double inclined plane to favour its discharge, and strips of soap plaster are passed around the leg to prevent its lodgment; soap and water injected into the suppurating cavities.

25th day. The granulations are rather pale; ordered to be washed with a solution of the nitrate of silver; a roller is applied pretty firmly to the leg and foot, and holes are cut in it for the discharge of matter; ordered compound infusion of gentian.

After the leg and foot were confined between two splints with foot-pieces for one month, he has gradually improved. At the present time (Dec. 1st) he is able to walk, with a cane, with considerable ease and flexibility of the ankle-joint, and is steadily improving. The deficiency in the length of the limb is very trifling.

Art. IV. *A Case of Chorea Sancti Viti.* By James Fountain, M.D. of Yorktown, West-Chester County, New-York.

The subject of the following case was a daughter of Mr. Wood, a wealthy and respectable merchant of Bedford West-Chester county, and a patient of Dr. Mead of that place. She had just entered her fourteenth year; her temperament was highly sanguineous; her constitution delicate, with a great flow of spirits; she had previously enjoyed good health, and had menstruated regularly. By some means her catamenia became suppressed in July, 1826. Her complexion soon lost its rosy hue, her eyes their lustre, and her countenance its vivacity; her spirits sunk, and she became pale and emaciated. For her relief Dr. Mead very judiciously put her on a course of mild tonic treatment, and under it she appeared to gain strength slowly until the 13th of September. On this day, military exercise having been performed around the house, she was observed to be startled at the sound of the drum, and evinced signs of fear and agitation. At dinner she was so affected by spasms in her fingers as to eat with difficulty; the extensor muscles were, at this time, mostly affected, throwing back her fingers. On the night of the 14th her mother slept with her, and, from the motions of her legs and arms, had much difficulty in keeping her covered. On the 15th I saw her the first time; pulse 75; bowels regular; tongue natural; countenance pale; appetite not much impaired. She was dejected and wished to be alone, and had slight twitchings in her fingers and feet, and yet could walk comfortably. At this time the indications of cure appeared to be *to invigorate the nervous system, and thus restore its healthy movements; and to reinstate the catamenia.* I advised an emetic, to be followed by the tinct. muriat. ferri, 25 drops three times a day; and an infusion of cortex cinchon. and oxide of iron, to be drank *ad libitum;* also 3 pills, to be taken at bed-time, composed of aloes, myrrh, assafœtida, and castile soap.

Sept. 18th. I found her pulse a little elevated; other symptoms much the same; the pills had failed to produce any effect either on the bowels or uterus; continue the tonics in larger doses, and let her take two pills at noon and three at bedtime.

Sept. 21st. I was sent for in haste; found her every way worse; had not slept in twenty-four hours; pulse 95; tongue yet clean. The pills had procured two motions daily; strength declining; spasms frightfully increased; almost every voluntary muscle in motion; articulation interrupted; deglutition very difficult; mind alienated; she frequently screamed violently. and tossed so much as to require the unremitting attention of three or four persons; hair dishevelled; clothes rent: exhibiting, in short, the most melancholy and heart-rending picture that can be imagined.

To wait any longer for the slow process of invigoration was, at this time, out of the question. The following indications now presented themselves, out of which the means of cure were to be chosen: 1st. *To allay sensibility:* 2d. *To create a more powerful action in the nervous system than that which constituted the disease:* 3d. *To institute a new, sudden, and permanent vascular action sufficiently intense to overcome the nervous irritation.* The disease being now fully evolved, continued independently of remote causes; the removal of the amenorrhæa was, therefore, a matter of secondary consideration only.

The means of fulfilling the first indication, were the anodynes; of the second, were the antispasmodics, properly so called; and the most effectual means of fulfilling the third, were the irritants. I advised resting the cure on the last indication, and recommended the arsenical solution, ten drops every two hours. To watch the phenomena of the disease and the effects of the medicine, I remained by her bed the three following nights. She commenced the solution Sept. 21st, at 6 o'clock P. M.

Sept. 22d, at 9 A. M. Having several motions from the pills previously administered, attended by some nausea, we diminished the dose of the solution to 5 drops, and called in the aid of the first indication, by adding to each dose 5 drops of the tinct. opii. At 6 o'clock P. M. of the same day, the stomach and bowels being quiet, and the symptoms unabated, we settled on the dose of ars. solut. 10 drops, tinct. opii 4 drops, every two hours.

Sept. 23d. Spasms no better; had slept a little by being held firmly by three attendants; continued the medicine all day. At evening, vascular action became intense; pulse 120 with some force; tongue white; thirst considerable.

Sept. 24th. Had slept soundly between 4 and 6 o'clock, scarcely moving a muscle; at 8 discontinued the medicine, and administered ol. ricini ℥iss.; at 12 had a good operation from the oil; resumed the solution and tinct. every two hours; spasms less.

Sept. 25th. Pulse 120 and firm; spasms much abated. At evening, feeds herself and is able to stand alone; has taken 300 drops of arsenical solution in four days. For a change I advised the arsenical pills,* one every six hours, and a laxative every third day. I did not see her again until Oct. 3d, when Dr. Mead gave me the following history:

Sept. 26th. Spasms had wholly left her, and she slept well. 27th. Was comfortable, but gloomy and suspicious; reduced the pills to three a day; no spasms. 29th, 30th, and Oct. 1st. No alteration; pulse all the time 120; had taken thirteen arsenical pills. Oct. 2d. Yet gloomy; free from every other symptom; tongue coated with a white scurf; pulse 120 and jerking; walks steadily. The nervous irritation having been completely supplanted by vascular action, I advised the discontinuance of the medicine, and some mild laxative to be administered; also, to defer the use of tonics until the arsenical commotion should have subsided.

Oct. 10th. I saw her again, and found her cheerful and well. Oct. 26th. Perfectly well; health, spirits, and complexion, all returned. I would beg to observe, that no swelling of the face was produced, and that neither *dropsy*, *consumption*, nor *rheumatism.* have yet appeared.

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* These and the solution were prepared according to formulæ p. 434.

Remarks. In the treatment of all diseases purely sthenic, relief, if ever obtained, is somewhat progressive from the commencement until recovery is effected. This, however, is not the case with diseases of irritation, which appear to be governed by laws peculiar to themselves; for when treated on the principle of counter-irritation by doses or medicine to overcome them, the morbid process is thereby aggravated, gathering new strength by opposition. This elevation seems to be an effort to maintain their own action; and this effort is called forth by whatever tends to disturb or supplant their order: thus, if an intermittent is attempted to be cured, and this principle and the means fail, the disease is only aggravated. Small doses of calomel increase the pain of dysentery; but large doses, as a scruple, allay dysenteric irritation, by producing their own peculiar movements. Small doses of stimuli, by creating moderate febrile excitement, always aggravate tetanus; but a table-spoonful of tinct. opii and a gill of brandy, every half hour, soon overcome the disease. Moderate excitement, also, aggravates asthma; but a severe inflammation of the lungs, consequent upon the measles, I have known to cure an old asthmatic. Hence, to practise counter-irritation successfully, two requisites are indispensable: 1st. A knowledge of the nature and intensity of the morbid process: 2d. A knowledge of the comparative strength of the irritant to be employed, and the extent to which its administration may be safely carried. These can be acquired only by experience, a patient and scrupulous study and observation of the phenomena of the disease, and of the effects of the agents used. To know what *can* and what *cannot* be accomplished by medicine should be the constant study of every practitioner, for to attempt the latter is about as reprehensible as to neglect the former. With respect to the extent to which the administration of arsenic may be safely carried, an adult may take, in extreme cases, five grains in twenty-four hours, provided he labours under no dyspeptic or other gastric affection, and takes a cathartic within twelve hours after the last dose.

Note. About the middle of November I was again called to visit this girl, and was informed that, after having been free from every symptom of her disease about a month, she had a return of her irregular motions, consequent to a severe cold induced by a long ride on a windy day and sudden change of weather the night following. I found her greatly agitated when attempting to do any thing or to speak to any one not a member of the family. At other times, the disease was scarcely cognizable. Dr. Mead had again put her on the use of the *arsenical pills*, three a day. I advised their continuance; and, at bed-time, two pills of aloes, assafœt. and myrrh, warm pediluvium, and copious potations of the infusion of pennyroyal *(mentha pulegium)*, as the catamenia had not yet appeared. The night subsequent to my visit she menstruated. Since that period she has improved rapidly, and at this time she enjoys fine health and is becoming quite robust.

Art. VI. *Remarks on Calomel.* By Dr. Moore Hoyt, of New-York.

The most trivial errors in medical subjects can never be viewed as harmless; but those arising from improperly associating cause and effect, are most fraught with evil, as they destroy the value of experience, and thus prolong the experimental part of every physician's practice.

In the New-York edition of Thomson's Conspectus, under the head of Hydrargyri Submurias, it is said—"Children bear larger doses than adults." Were this a solitary remark of the kind, I would not make it a subject for comment; but being the expression of a vague belief entertained by many, and as it has an important bearing upon an excellent mode of practice, it ought not to pass unnoticed. With opinions formed from similar remarks, I commenced practice with full confidence in the safety of large doses of calomel in diseases of "children"; but observation (not indeed requiring great labour or attention) has convinced me that children are not all alike, and that diseased action, in them, is not always the same.

The assertion quoted implies, that calomel is a poison—that its noxious effects (like those of all other poisons) are displayed in proportion to the quantity administered—but that "children" have the power of withstanding the operation of this poison beyond that possessed by adults.

It is now generally conceded, that an adult will bear, with perfect safety, 20 grains or more of calomel, or that 20 grs. are as safely administered as one; and further, that this dose is less liable to produce salivation (the only positive evidence we have of its poisonous quality) than one half the quantity given in minute doses. Now to say it would be *still more safe* to administer to children 20 or 25 grains is absurd. But it is the idea that large doses of this medicine are admissible in diseases of "children"; that, I conceive, to be mischievous, because the circumstances, which may render the article salutary or beneficial, are not taken into consideration, and we are left to draw the conclusion, that it is infancy, or some necessary attendant upon infancy, which renders the practice safe, and not any peculiarity of constitution which one child may possess and another of the same age be without. It will be admitted by almost every practitioner, that doses, containing the same quantity of calomel, may be administered to a certain number of children, without regard to their diseases, and produce fewer cases of salivation than in as many adults under similar circumstances. I have no doubt of this fact, and as little, that no other peculiarities of constitution protect the infant than those which, in rarer cases, exempt the adult from this unpleasant concomitant of remedial effect. The comparison of a few facts will give this opinion as much the appearance of truth as sometimes supports more mischievous hypotheses. Young children display in health an activity of arterial circulation far beyond that of the adult; and in a view of their diseases, we find that a majority of them consist in, or are at least attended with, a high grade of arterial action. Now, as far as I have been able to discover, the diseases of adults, in which physicians have safely and successfully prescribed large doses of calomel, have been those of a high grade of arterial action, either general or local; although the peculiar morbid action, for which it has been found an appropriate remedy, has not been sufficiently defined, it having been reported as highly useful in certain diseases, the names of which are often made to include a great collection of discordant phenomena. That it is this kind of increased action which is successfully combated by the liberal exhibition of calomel, is further confirmed by the late experiments of Mr. Annesly, who, among other conclusions, came to the following—that "the operation of calomel, in large doses, is opposed to inflammation;"* and, also, by a remark in accordance with this, made by the intelligent reporter of the diseases treated at the New-York City Dispensary, viz.—"there is something in its action [i. e. calomel] allied to a sedative effect."† Armstrong's observations, though not so directly to the point, tend to strengthen this position. He says, "very full doses of calomel generally produce *in fever less irritation* than small ones; and indeed, when combined with opium, so far from creating, commonly allay, irritation."‡

Dr. Peixotto states, that he gave to a dysenteric patient, in six days, "nearly three hundred grains"§—under which treatment the patient convalesced without salivation. That dysentery is a disease of debility, I believe no physician of the present day is disposed to assert. From a view of these facts we are authorized in drawing the conclusion, that it is a certain grade of arterial action above the standard of adult health, in which calomel is exhibited with safety and advantage in large doses; and as we most often find children, either in their states of health or disease, possessing a higher toned circulation, in proportion to their other functions, than adults, I think we may infer, that the same cause existing in them produces the same effect. This is certainly preferable to the preposterous conclusion, that "children" will bear a larger quantity of any poison than adults.

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* Ed. Med. and Surg. Journal.

† N. Y. Med. and Phys. Journal, vol. v. p. 458.

‡ Armstrong's Essay on Typhus, p. 328.

§ N. Y. Med. and Phys. Journal, vol. iii. p. 334.

I consider this subject practically important, because we sometimes meet with cases of disease among children, where, from defective excitement, a large dose of calomel would prove highly detrimental by still further exhausting the debilitated powers of life; and yet, in these cases, the same remedy, in minute doses, may be an agent capable of effecting much good. A line ought, long since, to have been distinctly drawn between these different states; and with a view of aiding an accomplishment so desirable to the practitioner, the following general practical statement is offered as a mite to the common treasury.

I first acquired confidence in the safety of large doses of calomel, in certain cases of infantile disease, from observing the practice of certain *country physicians*, who, if they do not always treat disease with all the punctilious ceremonies of the art, might frequently boast of a success which nicer means would have failed to produce. The results, in my own practice, have confirmed me in the belief, that this article may be given as liberally, in *many* of the diseases of children, as any other on the list of the materia medica, however innocent in its reputation, not only with positive safety, but with visible benefit. This is more than can be said of the majority of medicines that are administered to this class of patients, who are, I believe, too often the victims of an indecisive course, the consequence of ill-directed medical refinement.

In the treatment of many cases of cholera infantum, I have had, on the one hand, abundant and gratifying proof of the unrivalled efficacy of large doses of calomel; and on the other, sober demonstration of the pernicious tendency of indefinite rules. In the accession of this malady, or before the vital energies become too much exhausted, more by the protraction of the disease than by its violence, large doses of calomel have seldom failed, in my hands, of arresting it, and of laying the foundation for a speedy convalescence. But those instances in which I have only seen the patient after an indefinite period of illness—when the disease having struggled with, and overcome in a measure, the vital powers, and both were gradually sinking together, with "fitful struggles for supremacy," a scene that too often meets the eye of the physician; in the very few cases in which a large dose of calomel has been administered, I have been convinced that the practice was not only injudicious but prejudicial. The operation of the remedy, in these cases, appears not to be followed by any re-action, and, of course, adds to the previously existing debility. I do not know that I ever saw a fatal termination from this practice; but have felt the necessity of exercising the most assiduous attention to sustain my patient under its effects. In cases of cholera, attended with excitement, two or three grains of calomel, given in divided doses, would probably allay the vomiting; but 10, 15, or 20 grains will do more, by means of the powerful tendency it has to remove whatever there may be of local inflammation or general morbid excitement; and I fear not, that fact will controvert the assertion that the patient afflicted with cholera infantum who is made to retain in the stomach a single dose of fifteen grains of calomel, with all other remedies utterly proscribed, has the chances in favour of his recovery over the patient who is treated in the too common routine, in the proportion of two to one. As it respects graduating the dose to the age, I must confess that I have never been so happy as to become acquainted with that rule of proportion which, *in fact*, adapts a certain dose to a certain number of months. The patients who have been subjected to this mode of treatment have been chiefly between the ages of eight and eighteen or twenty-four months. If the article in question (when indicated) were one of doubtful or dangerous operation, I could not excuse myself for the least shadow of indifference upon a point that *would then* be important; but such is *not* the case; and with this impression I have repeated the remedy whenever the unsubdued symptoms appeared to require it, after a lapse of twelve or twenty-four hours. The object of this paper being confined merely to the consideration of a single article of the materia medica, that of other remedies which are sometimes useful as adjuncts in this disease, is purposely omitted.

In cholera infantum, with defective or exhausted excitement, small stimulating doses, nearly the same as recommended by Dr. Dewees in his late work, which, while they regulate the various secretions, do not exhaust, have, with me, seldom failed. The same remark will apply to the diarrhœa that attacks children most frequently during the second summer. It is difficult to conceive a disease more completely atonic in every feature than this: the paleness, loss of flesh, sinking of eyes, frequent liquid dejections, bilious, or oftener without a vestige of bile, the aliment of whatever kind passing unchanged—altogether mark a state of extreme debility, and one in which calomel is invaluable, but not in large doses.

I pass over many of the common febrile affections of children, in which the employment of the *mercurial febrifuge* has been more successful than any other plan of treatment I ever witnessed, to notice more particularly two cases possessing that kind of importance which diseases, often fatal, are invested with.

The first was a case of hydrocephalus in a child of twelve months, treated in the fall of 1822. In addition to the usual symptoms which render the existence of this disease probable, there was a tumour at the anterior fontanelle of the size of a butternut—also, strabismus. The child had been observed to droop for several weeks; the commencement of the tumour was first observed about two weeks before my visit; the squinting had not been observed till I directed the mother's attention to it.

A variety of means were employed in obedience to the best authorities, while the disease continued to advance slowly, but steadily, to its triumph. The treatment of the case was finally rested upon calomel, in doses of twenty grains, of which four or five were given with intervals between them of forty-eight hours, when the tumour had nearly or quite disappeared, and the medicine was administered after longer periods. I found it necessary to give the calomel for several weeks as often as once in four or six days, or signs of a re-accumulation of fluid would appear. But the attacks of disease became gradually less effective, as nature had, by degrees, more opportunity to repair damage and stand upon her defence.

I have selected this case from among three that were treated with the same view, and nearly on the same plan, (of which one terminated fatally,) because the diagnostic marks in this did not admit of doubt.

The second case was one of tabes mesenterica in a child of four years, which, after a long attendance, had been dismissed by another practitioner as incurable. The abdomen was very tumid, with an uneven or knotted feel; extreme emaciation and muscular debility; a weak and very frequent pulse. This case was successfully treated in precisely the same manner as the above, only it was sooner terminated.

These cases, perhaps as much unlike each other as any on the list of "ills," are introduced as instances of the important constitutional effects that follow the exhibition of liberal doses of calomel. They are also, from their location and peculiar nature, probably, as completely removed from the sphere of remedial influence as any that we are called upon to treat; yet they both yielded to the constitutional effect of calomel; an effect, I conceive, entirely the reverse of that which for a long time was viewed as the only beneficial one, viz.—that attended with, or the consequence of, salivation.—There was not, in either of these cases, that degree of general excitement which I have usually considered necessary for the suitable exhibition of the remedy; but in each, after the depressing influence of the local disease was diminished, there was a general re-action, like that observed to follow venesection in those local diseases attended with a depressed pulse, only in the one case it is more immediate, and in the other of slower appearance, but more permanent.

Art. VII. *Two Cases of Compound Fracture of the Patella, with Remarks.* By Stephen Brown, M.D. late Surgeon of the Alms-House and Penitentiary, and one of the Physicians of the New-York Hospital.

In March, 1825, a girl, aged 23, being confined as a vagrant in the Penitentiary at Bellevue, in attempting to make her escape from prison mounted the wall which encloses the yard, and in descending fell a considerable distance. The right knee struck upon a stone with such force as to fracture the knee-pan and lacerate the soft parts completely through into the cavity of the joint. The fracture was transverse and above the centre of the bone, so that the lower portion included about two-thirds of the bone, and the upper one-third.

The resident surgeon dressed the wound with lint and bandaging.

The following day I made my regular visit to the Institution, when this case was brought under my notice. The whole knee was now much swollen and extremely tender and painful upon the slightest movement; the pulse was rapid, with a considerable heat of skin, thirst, &c. The discharge from the wound was thin and watery.

I directed that the patient be kept lying upon the back with the leg extended upon a pillow, and the knee constantly enveloped with an emollient poultice, made with Indian meal and water, be smeared with hog's lard when spread and about to be applied, with a dossil of lint interposed between the wound and poultice.

Inflammation had supervened to such a degree, before this course was adopted, that it continued to increase, and the constitution suffered to an alarming degree. The knee became exquisitely painful, and the impression upon the nervous system was so great that it produced a rapid and feeble circulation, with great prostration of strength.

Three or four days after the injury her situation appeared so critical that several surgeons, who saw the case, thought amputation of the thigh ought to be performed without delay.

The operation, however, was deferred, notwithstanding the case was such, during two weeks, as to render it doubtful whether amputation would not eventually be necessary, as the last resort, for the safety of the life of the patient.

The poultice was applied without moving the limb, by drawing pieces of muslin or linen under the hollow of the knee sufficiently broad to contain the poultice, which was then brought around the knee so as to confine it snugly to the affected part, without motion. In about four or five weeks, from the accident, the swelling and tenderness of the knee had abated very much ; the wound, which had emitted an offensive discharge, put on a more healthy appearance about its edges, and the discharge became better conditioned. At this time, on account of the alarming prevalence of jail fever, it became necessary to remove the patients in this ward to a room one story below. In this removal such motion was given the affected limb as to bring on inflammation, which resulted in a copious formation of matter about the joint ; and the ulcer, which was before in a fair way of healing, did not heal under two months from the injury, and such a degree of tenderness and pain continued, that the poultice was applied during three months. Other applications were made by way of change, after the wound healed, but nothing had so good an effect, in abating pain and tenderness, as the poultice. After the tenderness had so much abated that she could bear a light pressure to approximate the fragments, a bandage around the knee, in the form of the figure of 8, was gently applied, and over this the poultice. This was not attempted, however, under three or four weeks after the accident.

The fragments united by ligament nearly an inch from each other. At this time there was a considerable degree of weakness and rigidity of the knee, and the power of flexion was very limited. She was, however, in a short time able to bear her weight upon the knee, and the power of flexion increased so that, about the last of August, she was discharged from the Institution.

Last March I saw this girl and examined her knee particularly. In appearance it did not differ from the other, except the two portions of patella were about an inch apart united by an intermediate substance. That it was a ligamentous substance that united them was evident, as by fixing the lower portion firmly, the upper one might be moved from side to side, as freely as an ordinary patella when the leg is extended. At this time she could walk without limping—could ascend and descend a staircase with facility; yet there was some rigidity still remaining, and pain after much exercise.

The 13th of December I again examined this girl's knee, when she informed me, that it was as "supple and sound as ever," as she sustained little or no inconvenience from it.

CASE II.

George W. Kniffen, aged 23, was admitted into the Hospital at Bellevue with a compound fracture of the *patella.* It was occasioned by the blasting of a rock, which, being charged, was accidentally ignited while he was standing near. A piece of stone struck the *kneepan*, which fractured the bone transversely, and lacerated the soft parts, so that an opening was made into the cavity of the joint.

The surgeon who was first called to the case closed the wound by the interrupted suture, over which he applied lint and a bandage. The day following the accident (Thursday) he was carried to the Bellevue Hospital. A cooling wash was now applied to the part and continued till the Sunday following, when an emollient poultice was first applied, made of Indian meal and water. At this time the knee was much swelled and painful. The ligature was removed from the wound, which had not at all united, owing to the high degree of inflammation which had supervened. The pulse was upwards of 120, and the patient manifested symptoms of *delirium tremens.* To counteract this affection and allay general irritation, opium was freely administered.

The pulse rarely fell below 120 in a minute during three weeks after the accident. The patient was kept as quiet as possible, with the leg constantly extended in an easy position, and the poultice renewed twice a day.

As soon as the inflammation and tenderness had sufficiently subsided to admit the application of an apparatus to bring the fragments nearer each other, this part of the treatment was very judiciously conducted by Dr. King, the resident surgeon, by means of a broad splint placed under the limb from the nates to the heel, and a bandage gently applied in the form of a figure of 8, and over this the poultice.

The poultice was not left off entirely under two months. At this time the wound had healed, all swelling had subsided, and the patient enabled to bear some weight upon the affected limb. In April he could walk about the room. At this time he could bend his leg considerably. He continued to gain strength and motion in the affected leg; and about the 1st of June took his discharge from the Institution.

I have not seen this man since that time. He could then bend his knee so as to walk with considerable ease; and from its rapid improvement during three or four weeks previous to his discharge, there was a much better prospect of the complete recovery of the flexibility of the knee (which was all that was deficient) than in the case of the girl above related, even eight months after her injury.

Remarks.—These cases are communicated with the hope that they will not prove uninteresting to the profession. As far as they may be regarded important in a practical view, they should be considered not only in relation to wounds of *large joints*, but also to the treatment of ordinary fractures of the *patella*.

With regard to the knee-joint, it has been truly said by a celebrated anatomist, that, in its structure, it is "the most complicated and (by daily melancholy proofs) it is known to be the most delicate joint of the body." Death sometimes takes place in a very few days from a serious injury of this joint bringing on inflammation, which terminates in suppuration. "Extreme pain, fever, and delirium, usually precede dissolution."

Very serious consequences *sometimes* result from simple incisions or punctures into large joints, as violent inflammation, extensive suppuration, hectic fever, caries of the extremities of the bones, with an absorption of their cartilages, anchylosis of the joint, &c. But *lacerated wounds* are always attended with much greater danger than simple incised wounds, because the parts do not so quickly unite, and the cavity remains longer imperfect. So great is the danger to the life of the patient, that it always becomes a serious question with the surgeon in such wounds, either of "the *elbow*, *knee*, or *ankle-joint*, whether amputation ought not to be immediately performed." The danger to the patient, in such cases, may arise from *gangrene*, *tetanus*, *inflammatory fever*, *extensive suppuration*, *hectic fever*, &c.

No general rule can be given to guide the surgeon in the painful and momentous question of amputation. Many cases undoubtedly occur in which such violence is done to the bones, blood-vessels, tendons, ligaments, nerves, &c. as to leave no doubt of the propriety of an immediate resort to this painful alternative.

In less severe injuries, where there is not much destruction of surrounding parts, an attempt to save the limb has frequently resulted in the death of the patient.

When a student, "The Practical Observations in Surgery," by Mr. Hey, of Leeds, made a strong impression upon my mind; and whenever wounds of joints have come under my observation, the principles and practice inculcated by Mr. Hey I have duly appreciated In wounds of large joints Mr. Hey remarks, "the utmost care should be taken in these cases to prevent inflammation. Upon this circumstance chiefly depends a successful termination. I have seen many large wounds of the great joints healed without the supervention of any dangerous symptoms, where due care has been taken to prevent inflammation; while injuries, apparently trifling, will often be followed by a train of distressing and dangerous consequences, where such care has been neglected. It is generally easier to prevent inflammation in the joints after a wound, than to arrest its progress when once begun I speak of inflammation affecting the *capsular ligament*."

It is well known to those who have read this excellent practical volume, that Mr. Hey's practice was, 1st, to place the limb in an easy position, with the muscles as much relaxed as possible: 2dly. the atmosphere was excluded by bringing the lips of the wound together, if practicable, by suture, and then to keep the part covered with soap plaster spread upon tow, or with an emollient poultice: 3dly. opiates administered occasionally as circumstances might require. He remarks, "a slight degree of redness and tenderness in the integuments only, is of little consequence; but when the *capsular ligament* becomes inflamed, the formation of abscesses, attended with a high degree of fever, and ultimately of stiffness of the joint, are common consequences, if the life of the patient is preserved."

Wounds of joints, therefore, always place the surgeon under a weight of responsibility, and the serious consequences so frequently resulting from them, render this subject peculiarly interesting.

Some advise immediate amputation in cases where there is laceration of the ligaments and parts about the joints; and if an attempt be made to save the limb, the first appearance of inflammation should be met by the lancet and other depletory means.

In relation to the treatment of wounds of joints, Dr. Dorsey remarks: "on the first approach of inflammation bleeding is to be performed and carried to as great an extent as the patient's strength will warrant. Topical bleeding, by cupping or leeches, is next to be employed," &c. This seems to be the fashionable mode of treatment, in such cases, among surgeons generally. Free depletion, as in ordinary inflammatory affections, is thought imperiously necessary, and the surest means of guarding against serious consequences. But may not the propriety of this practice be called in question?

It will, doubtless, be acknowledged by all, that in wounds of joints the danger arises from inflammation of the capsular and other ligaments, and the tendinous fascia about the joints; and that inflammation of the skin and cellular substance is of trifling consideration.

The reader acquainted with anatomy has already learned, that *ligaments, tendinous fascia*, as well as *bone*, have that peculiarity of structure which admits of no sensibility when sound. It is only in the inflamed state that they transmit impressions to the brain, and then become more exquisitely sensible than the softer parts of the body in a similar condition. Now as all our efforts, in such injuries, should be directed to prevent inflammation in parts which have a languid circulation and no sensibility in the sound state, or to reduce such inflammation when taken place, it becomes an important question—does our experience in the use of the lancet, in various diseases involving inflammatory action of bones, ligaments, &c. warrant the practice of free depletion, as recommended by our highest authorities and generally practiced, in wounds of the joints?

Whatever may have been the opinion of Mr. Hey in regard to this subject, it is a fact, that of eight cases of wounds of joints, which he published in detail as successfully treated, blood-letting was employed in only two: one was a case of compound dislocation of the ankle-joint, in which he took *nine ounces* of blood on the second day after the accident: the other was a compound dislocation of the last joint of the thumb; in this case inflammation took place in the hand and arm, and notwithstanding the use of "bleeding, purging, &c. several large abscesses formed in the fore-arm." The patient, however, recovered.

In chronic rheumatism, various scrofulous affections, as white-swelling, osteo sarcoma, nodes, &c. and other inflammatory action affecting the more solid and insensible parts of the body, the lancet is not much employed; and even in inflammatory rheumatism it frequently continues so obstinate, even after free and copious bleeding, that many practitioners discard the use of the lancet and depend on other means. In the gout the lancet has been generally condemned, especially when seated in the extremities.

Whenever inflammation takes place in those parts which are destitute of sensibility in a sound state, *time* is required for its reduction. Inflammatory action in wounds of the ligaments and parts contiguous to large joints, occasions great sensibility of the nervous, and consequent excitement of the sanguiferous system. But does blood-letting produce any speedy effect in relieving the local inflammation? It certainly does not. *Time*, as I before remarked, is required for the reduction of inflammation in the more solid parts.

If, then, general blood-letting does not produce a decided impression upon the local disease, may it not often (perhaps generally) increase the irritability of the nervous system, which, co-operating with the local disease, heightens the danger rather than benefits the patient? This will depend, in a great measure, upon temperament, as also upon the extent of the wound and violence done to the part; and, also, upon the extent of the blood-letting employed. Extensive wounds will, doubtless, suffer from the loss of a much smaller quantity of blood than less severe injuries, even though the cavity of the joint be exposed.

May not *tetanus* sometimes be induced in irritable habits by too much loss of blood, thereby increasing the mobility of the system? May not the debility induced in other cases hasten the patient's dissolution from *exhaustion*, *from more extensive suppuration* occasioned thereby, and consequent symptomatic fever?

I am disposed to the belief, that injuries of large joints produce a *fever of irritation*; the treatment of which should be particularly directed to operate upon the *nervous system*. The most important step in the treatment is to place the limb in such a situation as will produce the greatest relaxation of its muscles, and then guard against motion as long as the inflammatory action continues. 2dly. Emollient applications to the part, the best form of which is the poultice. 3dly. Opiates; and these may be applied to the greatest advantage directly to the part and upon the poultice; they may be given, also, internally, as the urgency of the case may require. An emollient poultice, constantly to the part, has a peculiarly soothing effect. It not only precludes the admission of external air into the cavity of the joint (a source of great irritation,) but is very efficacious in relaxing the part—in abating heat—thereby lessening pain and inflammation, and, consequently, relieving general excitement. If blood be taken at all, it should be drawn directly from the part, and without pain or motion in the limb; and this can be done only by means of leeches; and even this should not be depended upon to the exclusion of the steps in the treatment above mentioned, but which should be rigidly observed.

If it were thought advisable, I might extend this communication by detailing some other cases of wounds of joints successfully treated upon the above plan. I would, however, barely mention one more, in which a tenpenny nail was thrust deep into the cavity of the knee-joint by a fall upon a board through which the nail penetrated. This was a tedious case; but the man recovered, with the exception of a permanent stiffness of the knee.

2dly. The result of the above cases afford useful facts in relation to the treatment of ordinary fractures of the patella. It has been a matter of doubt among some surgeons, whether a union by bone ever takes place between the fragments of a broken patella. When there is some space between the parts a ligamentous or tendinous substance connects them. I have no doubt that this kind of substance also unites them when in close contact.

Some authors have thought that fractures of the patella *could not be cured.* Indeed, the French Academy of Surgery once adopted this opinion. They say the structure of "the *rotula* differs from that of other bones."

Other writers have contended, that some degree of lameness must always be the consequence of the fracture of this bone; and Mr. Hunter observed, that there was often a difficulty in effecting a union of its fragments; but he supposed the difficulty arose from some portion of ligament falling between the fragments.

The unfavourable termination of those cases which have given rise to the above opinions may have been the result of bad management, by applying apparatus to the knee and making unequal and painful pressure, before the inflammation and tenderness were sufficiently subdued in the ligaments and parts about the joint. Dessault very justly remarks, "that inflammation of the articulating surfaces, in the ligaments about the joint, ought to have more influence in constituting an unfavourable prognosis than any circumstance that authors have mentioned."

In a transverse fracture of this bone, which occurs most frequently, the fragments are more or less separated by the retraction of the extensor muscles of the leg attached to this bone. This separation is often considerable. The violence occasioning the fracture gives rise to inflammation, sometimes to a very high degree.

Now if, while the parts are in this state, pressure be made use of to keep the fragments in contact, the pain and irritation thus excited will keep up the inflammatory action in the ligaments and tendinous fascia about the joint. May it not be owing to this circumstance that ill success so often attends the treatment of the fracture of this bone? In the cases above related, the laceration of the soft parts, attended with a high degree of inflammation, forbade the application of bandages under several weeks after the injury. Great caution was then observed that they should not be so tight as to excite pain. The poultice was continued, at the same time, to keep the parts relaxed and counteract any irritation which the pressure would tend to produce. The fragments were united by an intermediate substance nearly an inch apart. The use of the limb was completely restored in both cases. If the efforts of the surgeon were directed to promote a union of the parts a little distance from each other, by which much pressure might be avoided, the union, no doubt, would be greatly facilitated; while, at the same time, freedom of motion, together with the vigor of the limb, might be restored.

Mr. Bell was of the opinion that the motion of the limb might be as well performed with a slight separation of the fragments as by a close union. Mr. Pott thought that such a separation would enable the patient, after his recovery, to walk with *more ease*. Flagani entertained the same opinion.

Art. VIII. *Case of Anomalous Delivery.* By John W. Sterling, M.D. member of the Royal College of Surgeons, London.

[Read before the Medical Society of the County of New-York.]

On the 1st October, 1826, I was in attendance on Mrs. S. aged 27 years, who was in labour with her fourth child. During the whole period of utero-gestation she had enjoyed a tolerable share of health; but from the time of quickening, which was not so strongly marked as in previous pregnancies, she did not feel that vigorous motion of the child to which she had been formerly accustomed; and during the latter months of her pregnancy, she was occasionally subject to paroxysms of such "dreadful pain," in the hypogastric region, that she became impressed with the idea that she would not survive the birth of her child. Until the day of her accouchement, however, she incessantly underwent a great deal of fatigue, and was generally able to attend to her ordinary household duties.

The labour was of 24 hours duration. The vertex of the child's head presented. On the first examination I thought that I felt the membranes protruding before the head of the child; but when the mouth of the uterus became more fully dilated, I could not distinguish any bag of waters, and I thought that the child's head had been thrust forwards before the waters, and that the membranes were drawn tightly over it. The latter part of the labour was severe in the extreme; and on the protrusion of the head I was prepared to rupture the membranes, lest the child should be drowned in its own liquor amnii; but was surprised to find that the head was not enveloped by the membranes, and no liquor amnii discharged. The child was born perfect; the skin was somewhat shrivelled, as if it had lost some of its plumpness. The placenta was thrown off about fifteen minutes after the birth of the child. It was thick and dense; the membranes covering one side of its uterine surface were whitish and opaque, but smooth and shining, apparently indicative of some inflammatory action having previously existed at that part: on the other side of the maternal portion there was a slight laceration of the placenta, but no loss of substance; for on putting the lacerated edges together, they came into exact coaptation.

On attempting to remove the placenta, I found that it was retained by the membranes, which, on trying to extract, began to give way, which induced me to pass my hand higher up the vagina, when my fingers struck against a body possessing considerable firmness, which I thought might possibly be the presenting part of another child: on examining externally, however, I found the abdominal tumour so greatly reduced in size that I concluded such was not the case. I introduced my hand into the uterus, and passing my fingers over the edge of this substance attempted to extract it, but the effort produced so much pain in the back of my patient that I was obliged to desist. Notwithstanding, I repeated my efforts three or four times, but the pain was so severe that I gave over all further attempts for its removal. It appeared to be firmly attached to the inferior and posterior portion of the uterus near its cervix, and I came to the conclusion that it was an organic disease of the womb.

I remained with my patient about an hour after the delivery of the placenta, in the course of which time this substance was discharged. It was about two-thirds the size of my hand, of a triangular form, about an inch in thickness at its centre and base, gradually becoming thinner as it approached its edges, and enveloped in a delicate membrane. To it was attached a small white worm, about five or six inches in length, and a line in circumference. This worm was apparently alive when I first saw it; for, on putting it into a vial of water, it kept itself suspended, but on substituting spirits for the water it fell in a coil to the bottom of the vial.

On examination of the substance discharged, it was found to be perfectly free from any putrid odour, and for three or four days it still retained its sweetness. On cutting into it, it appeared to be an organised mass, with membranous septa running in a longitudinal direction and vertical to its surfaces: these septa were about a quarter of an inch asunder, and thin interspaces were filled with a structure approaching in its nature more to that of muscle than any other structure with which I can compare it. Intermixed with this mass were found minute spiculæ of bone; larger portions of a semi-cartilaginous structure; numerous hairs, and a quantity of dark coloured carbonaceous substance of diverse forms and dimensions. In short, I considered it to be what is usually denominated "a mole."

With respect to the formation and growth of this substance, I am disposed to believe, that, at the time of conception, two ova had been impregnated, both of which entered the uterus; that in one, the function of epigenesis went on regularly and progressively to the formation of a perfect fœtus; while in the other, from some cause or causes to us unknown, there was a deviation from the natural and regular course of this process: or, that two fœtuses were actually formed, one of which became dissolved or absorbed, whilst those parts, which were of a more solid structure, resisted for a longer period the absorbent process, and that the placenta, still remaining adherent to the uterus, and deriving from it the vessels destined for the nourishment and growth of the fœtus, these vessels still continued to pour out their secretions, and deposited the uncouth mass which has just been described.

How to account for the worm is beyond my philosophy.

The deficiency, or total want of the liquor amnii, may be accounted for, by supposing the existence of previous inflammation in the amnion, whereby the mouths of its vessels became closed, and a further secretion of the liquor amnii prevented. There was the appearance of inflammatory action having been set up in a portion of the membranes covering the maternal surface of the placenta, and the membranes which enclose the waters were extremely lacerable.

The mother recovered without any unpleasant symptoms. For a day or two, subsequent to parturition, she complained of considerable pain in the back, but the lochia were profuse, and, as usual, gradually declined towards the end of a month from the period of her accouchement.

I consider this case as of some importance in a physiological point of view, and may lead to the inquiries:—Is the fœquor amnii absorbed by the cutaneous vessels of the fœtus? Is the liquor amnii so necessary for the protection of the fœtus in the latter as in the former months of gestation? It may be stated by some, that in this case there must have been some waters discharged previous to the birth of the child. I cannot positively affirm that this was not the case; but my examinations were so strict, that had the least quantity of waters been evacuated it would scarcely have been possible for it to have escaped detection. Besides, the child was smaller than some of which this woman had been previously delivered, and the latter part of the labour was much more severe, which I attributed solely to the dryness of the parts, and the want of that degree of relaxation of the passages which the discharge of the waters necessarily induces. I have not the least doubt that the liquor amnii was absorbed in utero, but whether by the amnion or the fœtus it is difficult to determine. I am not aware that the existence of absorbents has been demonstrated in the amnion; but as all secreting organs in the body, with whose minute structure we have been made acquainted, are found to possess these vessels, we may reasonably infer that they also exist in the amnion. If this was not the case, as this membrane forms a shut sac, and its secreting surface is so very extensive, the quantity of fluid that would accumulate in it in the space of nine months, would be very great, far greater than is usually found at the termination of this period. In persons of a lymphatic temperament, in whom secretion greatly predominates over absorption, this fluid is increased to such a degree as to form what is called dropsy of the ovum. In morbidly formed sacs, the internal surfaces of which are lined by a serous structure, the quantity of fluid which accumulates in a short period is very great—in dropsy of the ovary for instance.

I do not think that, in this instance, the liquor amnii was absorbed by the amnion; for, if inflammation of the amnion was the cause of the cessation of this secretion, the same cause must have operated on its absorbent vessels also, by closing their mouths. We must then attribute its absorption in this case, to the fœtus alone.

I have no doubt that the liquor amnii existed in the first months of utero gestation; for it is scarcely possible for so delicate a structure as the human embryo to grow or exist in the early stages of pregnancy, unless separated from the sides of the uterus by the distending effects which the accumulation of this fluid necessarily produces upon its cavity. It is this fluid which enlarges the cavity of the uterus, removes its pressure from the embryo, in which it floats, and which gives its different organs room to sprout and grow. In the latter months of pregnancy this fluid may not be so absolutely necessary, for the fœtus has acquired a greater degree of firmness; its circulation is more vigorous, and it is better able to resist the injurious effects which the pressure of the uterus might produce upon it.

Art. VIII. *Quarterly Report of Diseases treated at the New-York City Dispensary, from the* 15*th Sept. to the* 15*th Dec.* 1826.

Anasarca	6
Amenorrhœa	29
Aphthæ	3
Abscessus	9
Ascites	4
Abortio	1
Arachnitis	1
Bronchitis Chron.	39
——— Acut.	44
Cephalalgia	18
Cephalea Nauseosa	3
Cholera	5
——— Infantum	3
Cardialgia	5
Colica	7
Contusio	65
Caries	2
Contorsio Spinæ	1
Concussio Cerebri	1
Cataract	2
Dyspepsia	34
Delirium a Potu	6
Dentitio	5
Debilitas	5
Diarrhœa	50
Dysenteria	63
Dysmenorrhœa	2
Dysuria	1
Diabetes	1
Erysipelas	8
Enteritis	3
Febris Simplex	60
——— Remittens	41
——— Intermittens	138
——— Typhus	7
——— Puerperalis	1
Fractura	3
Fistula in Ano	3
——— Lachrymalis	1
Gastritis	1
Gastrodynia	15
Hydarthrus	1
Hydrocephalus	1
Hæmoptysis	4
Hepatitis Chron.	11
Hæmorrhois	8
Hernia	2
Hydrops	1
Hysteria	2
Hydrargyritis	1
Herpes	3
Icterus	10
Impetigo	6
Lienteria	1
Leucorrhœa	3
Lichen Simplex	1
Laryngitis	4
Lithiasis	2
Luxatio	2
Lepra	1
Linguitis	1
Menorrhagia	5
Mastitis	1
Mania	2
Nebula	1
Ophthalmia Simp.	13
——— Chron.	7
——— Tarsi	7
——— Purulenta	1
Orchitis	1
Obstipatio	6
Otirrhœa Purulenta	2
Phthisis Pulm.	19
Paracussis	1
Pleuralgia	24
Pneumonia	35
Pleuritis	9
Pertussis	12
Parotitis	5
Paralysis	3
Porrigo Decalvans	1
——— Scutulata	6
——— Favosa	20
——— Larvalis	3
Plethora	12
Psoriasis	3
——— Palm.	5
Phlegmon	4
Prurigo	3
Paronychia	2
Phymosis	2
Podagra	1
Rheumatismus Chron.	91
——— Acut.	4
Rubeola	7
Syphilis	20
Scrofula	2
Stremma	15
Scabies Inveterata	3
——— Vesiculosa	7
——— Pustulæ	6
Strophulus Confertus	5
——— Intertinctus	1
Scarlatina Simplex	2
Sycosis Menti	2
Tumor	16
Tinea Ciliaris	2
Tonsilitis	10
Trachitis	2
Urticaria	1
Ulcus Cornæ	5
——— Chron.	32
Ustio	10
Urethritis	20
Vermes	23
Vulnus	21
Variola	15
Varioloid	2
Vertigo	12
Total	1309

The diseases of the past quarter have been wholly without interest. The number of applications have been less for the same length of time, than at any former period; and those cases, which have fallen under our notice, have been chiefly of that common character requiring but a few simple remedies.

The usual number of autumnal *intermittents* have been met with; they were principally of the tertian type, and submitted readily to quinine, preceded by full doses of calomel and emetics. We have made trial, in several cases, of arsenic, given in comparatively large doses; but we cannot say that we have seen any reason to prefer it to the quinine; indeed, we think that the disease is more apt to return after its use, at least it has so happened when we have used it. Its effect upon the *liver* seems to be more evidently pernicious than when the preparations of cinchona have been given. This has not been owing to any neglect in not having previously cleared the first passages, or in having given it at improper periods; for we have been extremely careful to precede its administration by free purging, and to give it during perfect apyrexia. This effect upon the viscus we attribute to its peculiar irritation of the stomach and the sympathetic implication of the liver, which usually takes place when, no matter from what cause, that derangement occurs. In one case, the same sympathy we have seen extended to the lining membrane of the fauces and aphthæ, accompanied by the peculiar foul tongue attendant upon this consequence of gastric derangement.*

For ourselves we are of opinion, that arsenic is a remedy which we may have recourse to as a *dernier resort*, when quinine has failed in putting a stop to the paroxysm of an intermittent; but whilst we have the latter, to us there appears no good reason why the former should be preferred. We would not be understood, however, as wholly proscribing its use—

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* Note. The manner in which we have used it has been that recommended by Dr. Fountain. (See 19th No. of this Journal.) Extreme care was taken in following his directions, especially in the administration of a purgative five or six hours after the last dose.

as undervaluing its powers, or as objecting to its general administration, from any of those fears which we have heard publicly proclaimed;—these, indeed, we think are fanciful, arising more from a spirit of contentious opposition than from any practical experience of its asserted dangerous and frightful effects.

Dysentery.—This disease has presented itself in its usual numbers; but we have nothing peculiar to offer, either as to its character or treatment. From additional experience of the use of calomel in large doses, as noticed particularly in our last report, we have become more firmly convinced of its usefulness. As connected with this disease, however, we may here relate the following case of metastasis. There is nothing, perhaps, important in its history, but it may not be devoid of interest to those who have never met with a similar occurrence.

A cartman of intemperate habits was affected with dysentery, for which, after other domestic remedies, he took a curious compound—gruel made with meal and a strong decoction of oak bark. This acted *charmingly*—to him; but, in the course of thirty-six hours, he was seized with most acute pains in the joints, darting with extreme violence through his whole frame. On the 16th November he applied at the Dispensary. Upon visiting him we found both knee-joints swollen, tense, and accompanied with excruciating pains; the left wrist and elbow were in like manner affected; tongue clean on its edges, foul and dry in the centre; pulse frequent and bounding, but compressible; skin hot; thirst extreme. As these symptoms evidently depended upon a too sudden check of the dysenteric affection, the indication was plain enough; and, therefore, he was treated as if it were an acute case of that disease.—Hyd. s. mur. ʒss. c. pulv. rhei, grs. x. divided in four parts, one of which was directed to be taken every fifteen minutes—emp. lyttæ to the calf of each leg, and after the operation of the calomel, half an ounce of spts. mindereri every hour. The calomel answered extremely well, the first powder affording relief: the discharges black, slimy, and very offensive.

On the following day we found that the heat and swelling of the joints had considerably subsided; he had slept well; pulse soft and less frequent; tongue clean. Directed pulv. Doveri, grs. x. c. pulv. camph. gr. ij. to be taken every fourth hour. He was seen the next day; had no pain; joints of nearly their natural size; a little stiffness remaining, for which he had liniment. Discharged.

Arachnitis.—This case, which we consider as one of a chronic character, developed itself suddenly from an increased determination to the brain, produced by a pulmonic affection. In all cases of cerebral disorders, this effect is remarkably evident; for where (from whatever cause) respiratory obstruction or a congestion of the lungs takes place, a preternatural fulness in the head is kept up, and thus contributes, in no small degree, to cerebral phlogosis. There can be no doubt, we think, that, in the following case, chronic inflammation had been for some time going on, and we can easily conceive how this may have been suddenly rendered more conspicuous by the increased determination necessarily consequent upon pulmonic congestion.

Case. A porter, aged 35, of a full plethoric habit, applied at the Dispensary for relief on the 28th October. About three weeks previously he accidentally fell into the river, and had complained ever since of head-ache and slight cough, which was increased at night when in a recumbent position. On the above day, while sitting in the common room of the institution, he suddenly dropped from his seat in an epileptic form of convulsion, which lasted three or four minutes. Upon his recovery the usual examination, as to name, residence, &c. was gone into. His answers appeared to be rational and consistent, and as he only complained of slight cough, some simple medicine was prescribed for him. After leaving the Dispensary he stopped at a friend's house, where he was seized with another convulsion. He was then taken to his own residence. The accession of fits increasing in number, a private physician was sent for, who bled him to the amount of between thirty and forty ounces, and directed the application of sinapisms to his feet. Late on the same evening we were requested to see him. The convulsions, at this time, succeeded each other with a singular regularity—the interval being about fifteen minutes; the left side and upper extremities were most affected, and the head was drawn slightly backwards and towards the right side; his head hot, and the smallest arteries of the scalp were throbbing with much violence; pulse compressible, but extremely irregular; eye-balls turned upwards and in constant motion. This pulsation was synchronous with the pulsation of the arteries in all their irregularities. He moaned, champed-his teeth, and slimy froth issued from his mouth; he was perfectly insensible and incapable of articulating. We bled him again to the amount of twenty ounces; ordered salts, hot sinapisms to his feet, and cold applications to the head.

Upon comparing the information which we now gained with that which he had given to the physician who prescribed for him in the morning, we found that there had been considerable aberration of mind. He had misstated his age, residence, and complaint. We also learnt, that for three days he had suffered most severely with cephalalgia, and violent cough and dyspnœa.

29th. Returning sensibility was first perceived a short time after the application of the sinapisms; the salts had been taken, but without effect; head cooler; a few convulsions through the night; he had articulated and recognised his friends; restless and moaning; skin and tongue cool; pulse small and irregular. Ordered emp. lyttæ to the spine, sulph. sodæ, ℥ij. fol. sennæ, ʒij. At 1 o'clock, we saw him again. Had had no convulsions; head cooler; pulsation of its arteries less sensible; comprehended what was addressed to him. As the senna had not operated, ordered ol. crot. tig. gtt. v.

30th. The bowels had been operated upon freely; no return of convulsions; pulse remains irregular; scalp cool and forehead moist; throbbing has ceased; tongue a little coated; was rational and had enjoyed a little sleep; complains of cough and soreness within the chest. Emp. lyttæ on the breast, aq. ammon. acet. ℥viij. c. ant. tart. gr. ij. a tablespoonful every hour.

31st. Had rested through the night; felt well, with exception of the cough, which had become more troublesome; expectoration viscid; no symptoms of cerebral disorder remaining.

November 1st. No alteration.

2d. Delirious through the night, fancying himself in danger of falling ice, timber, &c.; inability to sleep. In conversing with him we discovered no evidence of mental derangement; indeed he was perfectly consistent in his conversation; his whole appearance contradicted any suspicion of derangement. It was only when left to himself, or when he closed his eyes in attempting to sleep that he became affected with a fear of fancied dangers. He complained particularly of a sense of apparent expansion and elevation of objects. Pulse irregular and small; skin and secretions natural; tongue pale, cold, and clean; obtuse pain and throbbing over the eyes. *Tinct. lupulini, ℥ss. every hour.* Saw him in the evening. The lupulin had produced no other effect than that of quieting the cough and in removing, in a slight degree, the throbbing pain over the eyes. *Pulv. Doveri, gr.* x. *every hour* until he should become calm and quiet.

3d. Fell asleep early this morning; no derangement; pain and throbbing have entirely ceased; cough free; pulse stronger but very irregular. *R. lup.* ℥iv. *c. ant. tart. gr.* iv. a tablespoonful every two hours.

4th. Sleeps soundly and with much refreshment; pulse as heretofore; appetite good, and secretions natural.

6th. Discharged.

Although attempts to simplify diseases are at all times desirable, still a too great disposition for generalizing may frequently prove an obstacle to professional improvement. It is in this light that we view Dr. Good's rejection of arachnitis from his nosological arrangement. In this, however, he is only a follower of Cullen and other writers. Cullen is averse to the distinction between inflammation of the substance and membranes of the brain; because, as he affirms, it does not "seem to be confirmed by observation and dissection." But he had neither seen the general improvement in pathology nor the particular addition to that portion of medical science, drawn from the *necrotomic* investigations of Lallemand and other French writers. It only requires a perusal of the result of their labours to be convinced both of the incorrectness of Cullen's remarks and of Good's assertion, that this distinction cannot be supported by any "*pathognomic symptoms.*" Among the many cases given by Lallemand, Duchatelet, and Martinet, one symptom is to be remarked as having always attended where dissection has afterwards shown the greatest lesion of the arachnoid—this is the epilepti-form convulsion. "Convulsions," say the latter authors, "are one of the most characteristic signs of arachnitis" In one third of the whole number of cases, which fell under their notice, these took place. This symptom, so prominent in our case, if it has ever been observed as occurring, has never, we believe, been placed among the characteristics of inflammation of the cerebral parenchyma. It may occur however, we have no doubt, even in this case, but such a fact we think would be a strong indication that, with such inflammation, the arachnoid was either primarily or consecutively implicated. That structures so contiguous should, when diseased, affect each other; or that some of their symptoms should be, as they often are, concomitant, does not appear singular; still the distinguishable characters may be considered, at least, as satisfactory as in inflammation of the lungs and liver, and their proper membranes; yet, in the latter case, it has been thought neither idle or useless to mark the peculiar characters of each. That this distinction leads to any important difference in the curative means employed, we think, may be doubted; but the discrimination between the two localities of the inflammation we believe to be desirable, and calculated to add to an intimate knowledge of an organ of so much importance that its slightest deviation from a healthy action has not only an immediate effect upon our moral feelings and sensitive faculties, but produces also important derangements in numerous other parts of our intricate system.*

Among the *Remittents* a few troublesome cases have occurred, owing to their being complicated with an harassing dry cough. There was no pain in the chest—no symptom evidencing acute inflammation. The fever, in other respects, was of a simple sub-acute character, but tedious and requiring much patience in procuring convalescence. Medicine in these cases seemed to have but little effect, the disease appearing to run through a certain course of its own.

Variola.—This disease has again made its appearance in this city. Its victims are chiefly among the lowest class, and under the circumstances always attendant upon their mode of living it has generally assumed its worse form. The cases of varoloid have not been as common as during its former visitation; and those which have occurred, have been in almost every instance of a mild character, requiring scarcely any medicine but acidulated drinks.

We may here notice a new instrument for vaccinating, which has been used in this institution. The name of the inventor we do not recollect. It is a small canula, with an extremely sharp pen-shaped extremity. The virus is introduced in this; the instrument is then passed under the skin, and by pressing upon a stilet within this canula the matter is inserted. The advantages, besides many minor ones of convenience, &c. are the certainty, despatch, and neatness with which the operation is performed. From the extensive trials made with it at the Dispensary, we have found a decided advantage, not only in the mechanical part of vaccinating, but particularly in the perfection of the pustule, over the old inconvenient and uncertain mode of scarifying with a lancet, and applying the virus externally by means of a "point."

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* Note.—Since writing the above we have accidentally seen the subject of this case. He has occasionally throbbing of his temporals, and is much troubled with dyspnœa; his pulse is most singularly irregular, both as to its quickness and strength; his countenance has something peculiar in it—a wildness and restlessness of the eye; with these he has palpitation of the heart. We examined him with the stethoscope, but distinguished only the *rale;* but as we are not perfectly conversant with its use. we consider the examination as unsatisfactory.

REVIEW.

Art. I. *A Letter to the Hon. Isaac Parker, Chief Justice of the Supreme Court of the State of Massachusetts, containing Remarks on the Dislocation of the Hip-joint, occasioned by the publication of a Trial, which took place at Machias, in the State of Maine, June* 1824. By John C. Warren, M.D. Professor of Anatomy and Surgery in Harvard University, and acting Surgeon in the Massachusetts General Hospital. *With an Appendix of Documents from the Trial necessary to illustrate the history of the case.* Cambridge, (Mass.) 1826. 8vo. pp. 142.

Professor Warren bears a name that is dear to us as Americans. His education has been among the most finished in our profession, and, at an early period of his life, he was called to the responsible situation which he now holds in the medical department of Harvard University. Anatomy and Surgery, as might naturally be supposed, have formed his peculiar study, and it is certainly not too much to say, that, on these subjects, his opinion is deserving of high respect and mature consideration.

These preliminary observations are necessary to introduce the narrative contained in the publication, whose title we have given above. The feelings that have induced its appearance, are, of course, in a degree personal; but we are greatly mistaken, if it does not present many points of deep interest to the profession and the public.

In December, 1821, Dr. Warren was called to visit a stranger (Mr. Lowell) at a public house in Boston.

> "He informed me" (says Dr. Warren) "that he had received a severe injury in the hip, and had travelled a considerable distance for the purpose of obtaining surgical aid. His account of his misfortune was as follows:

He was riding a spirited horse, when the animal, being restiff, suddenly reared and fell backward on his rider. The weight of the horse was received on the inside of the left thigh, the patient having fallen on his back, a little inclined, as he said, to the left side. When he attempted to rise, he found himself crippled, and had continued so from that time."

Our author proceeded to examine the nature of the injury, and finding it peculiar and difficult, he repeated the examination on the succeeding day. The result of his investigation was, that there was a *dislocation of the thigh backwards and downwards.*

On informing the patient of his opinion "the information did not seem, as I expected it would, to surprise him, for, having heard my opinion, he proceeded to state, that he had, in the beginning, supposed the limb to be put out; that he had applied to surgical practitioners in his vicinity, and had been operated on for a dislocated hip; that the bone was supposed to have been restored to its proper place; and that he himself thought so, till he got up and began to try his limb, when he found it in a crippled state, and was, after a time, led to believe that it had never been reduced to its proper situation. He did not, as well as I can remember, name the practitioners to whom he had applied, nor did I hear their names till a long time after." p. 3.

Mr. Lowell inquired, whether any relief could be given; and in reply to the natural answer, that dislocations of the thigh-bone are very difficult to be reduced even when recent, and that the probability of success was greatly diminished, both on account of the time that had elapsed (it was dislocated in September) and the peculiar nature of the injury, urged that some attempt should be made. He was willing to suffer any thing to get the use of his limbs. "I am young," he said, "and depend on my bodily exertions for my living. I am ready to run some risk of my life for the chance of getting the use of my limbs again."

Not having the proper accommodations and apparatus at the public coffee-house, Dr. Warren advised Mr. Lowell to go to the Massachusetts General Hospital, where every thing requisite would be amply supplied. To this he consented, and previous to undertaking the operation, Dr. Warren called a meeting of the consulting medical officers. Four of these attended—Drs. Townsend, Mann, Walsh, and Spooner. They examined the patient in the absence of Dr. Warren, and came "to a decided conclusion, that the limb was misplaced; and as to its restoration, they were equally well satisfied that it was highly improbable, if not impossible." It was at the same time agreed, that if Mr. Lowell, with the knowledge of all this, should still persist in desiring the operation, it would be expedient to perform it. They were satisfied that he must be maimed for life, if he remained in his present condition; while, on the other hand, a *chance* existed of a successful reduction.

The opinion was communicated to Mr. L. It produced no change in his resolution, and Dr. Warren, therefore, made the necessary arrangements. A purgative was premised. The warm bath was used, and small doses of tartar emetic were given, in the way suggested by Sir Astley Cooper, so as to produce that sickness which relaxes the muscular system; and finally, at the moment when the apparatus was to be applied, a vein was opened and blood drawn as rapidly and in as large quantity as the faintness of the patient would allow. Pullies were applied to produce the necessary exertion, and force used in every mode that was deemed consistent with his safety. The patient bore it manfully, without complaining. But after continuing this for an hour or more, without effect, both Dr. Warren and the consulting physicians were of opinion, that the reduction was impracticable, and agreed to a discontinuance of the operation.

In a day or two Mr. Lowell was well enough to leave the Hospital. He afterwards applied to two surgeons in succession, who each attempted the reduction without success.

We must now notice the early history of this case. Immediately, on receiving the injury in the manner already related, a physician (*Dr. K.* as Dr. Warren designates him) was called, who declared that the hip was dislocated. He attempted the reduction, but without success. In a few hours, another physician (*Dr. J.*), who had been sent for, arrived. He also examined the part, had a private conference with Dr. K., and then stated, that the hip was out, and the socket which received the thigh bone was fractured. Another operation was agreed upon, and after some time Mr. Lowell declared that he felt the bone go into its place and was freer from pain. The injured limb was turned in various directions by the operators with ease, and they declared the bone set. On the fourth and fifth days thereafter, the patient suffered much pain. Dr. J. was again sent for, but does not appear to have arrived until more than a week had elapsed. Mr. Lowell pointed out to him a hollow in his hip, which was very apparent. The reply was, that this was a natural consequence, and when Mr. L. gained strength it would fill up. On the 23d of October (the fourth visit) it was discovered that there was a material difference in the length of the limbs. Dr. J observed, that either it looked as if it was not set or was not in its place, and promised, at some future day, to call and make a thorough examination. On the 19th of November he came, but it is not stated what he did. These facts, it must be observed, are taken from the depositions of unprofessional witnesses.

We do not find any occurrence noted from this period until the time when Mr. Lowell consulted Dr. Warren at Boston; and, therefore, resume the narrative as given by the latter gentleman.

Some time after the unsuccessful attempts at reduction, both in the Massachusetts Hospital and by different surgeons, Dr. W. met the patient in the street, and was accosted by him.

> "He informed me, that he was about to return home; that he had thoughts of instituting a suit against the physician and surgeon who were first called to him, and that he should be glad to have from me a statement of the case. On hearing of this intention, I immediately remonstrated with Mr. Lowell. I told him, that he ought not to blame his medical attendants, for his case was one of difficulty; that they had done the best they could for him; and that if he trusted any medical man, the responsibility must rest with himself, for, if he had not confidence, he should not have employed the individual. To this he replied, that he would not desire to bring an action against the surgeon, had he done the best he could; but that he thought himself grossly neglected; that when he first suspected his limb had not been reduced, as it was thought to be, he sent for the surgeon, and was not able to obtain his attendance till a number of days afterwards; that when he did come, he acknowledged things were not right, but left him without making any attempt to rectify the difficulty, and that he was, in consequence, a cripple for life. He thought he was entitled to compensation for the injury he had suffered in being thus neglected. My

> answer was, that there were probably circumstances connected with this apparent neglect not fully understood, and which would give a different aspect to the case; that certainly I was of opinion he could not expect to recover damages in such a case; and, therefore, strongly advised and hoped he would lay aside all thoughts of a lawsuit, and must excuse myself from giving a statement, in any manner interfering further in the affair. With this we parted, and I believed that what I had said to him would influence him to abandon the project of a prosecution." pp. 10, 11.

Mr. Lowell, however, after a considerable interval, commenced a suit against the surgeon and physician first called to administer to him. He obtained a verdict with 1900 dollars damages. A second trial however, and even a third ensued, (the manner in which these were obtained is not explained.) In the former, the verdict was again for him, damages 100 dollars; while, in the last, the jury could not agree, "except in acquitting the physician first called; and one of the jurors being unable to attend longer, on account of ill health, the parties agreed to withdraw, without costs on either side. The result of this last trial was, therefore, in fact favourable to the defendant."

Previous to the occurrence of the third trial, Dr. Warren was visited by the plaintiff, for the purpose of obtaining his deposition to the facts that had come within his knowledge. It was in vain for him to decline this. He was legally summoned, and compelled to give his testimony. His answers to the interrogatories are contained in the Appendix, and their substance is very fairly and accurately given by the author as follows:

> "That I did at a certain time attempt to reduce the dislocated limb of the plaintiff in conjunction with other physicians and surgeons named;—that the reasons for believing the existence of a dislocation in this case were, the unnatural position of the limb, its elongation, the accompanying contraction of the thigh and leg, the displacement of the trochanter, the displacement of the head of the thigh bone, its appearance in an unnatural situation in or near the ischiatic notch, the inability to use the limb in the ordinary manner, and the consequent necessity of extraordinary and constrained movements;—that manual force might succeed, sometimes, in reducing dislocations of the hip-joint, and that when this failed mechanical means must be employed;—that the elongation of a disordered limb might be produced to some extent, by simple relaxation of the muscles, or by relaxation

of muscles accompanied with fracture of the bone;—further, that the thigh bone, after being reduced, might be thrown out again, by the application of considerable force, or by movements of considerable extent, but not otherwise;—that a surgeon, who employs the best means in his power, ought not to be responsible in damages;—that a surgeon who has opportunity to examine a case of dislocation immediately after the injury, other circumstances being equal, has better means of judging of the nature of the case than one who examines several months after;—that the case in question, though not without its difficulties, appeared to me to be one, in regard to which men of high standing in the profession would not differ." —p. 17.

Similar interrogatories were also submitted to three of the consulting physicians, and their answers coincided, generally, with those of our author.

This, then, is the history of the case so far as it relates to Dr. Warren. We stop to inquire, whether there is any thing in his conduct unprofessional, unkind, indecorous, or unbecoming the character of a gentleman? We think not. But we regret to add, that the treatment he has received deserves even harsher terms than those we have used. It seems not to have been sufficient to obtain a verdict against the plaintiff, to leave him a helpless, ruined man on the community, but from motives, which we do not wish to scrutinize, a celebrity, distinct from its local excitement, has been given to the case by the publication of the speech of the defendants' counsel. We are furnished with extracts only from this production, but we presume they are fair specimens of the whole, and an opinion may readily be formed of its character when we state, that the operation for reducing the injury, at the Massachusetts General Hospital, is compared to the agonies of Damiens, the assassin of Louis XV. This wretched man, our readers will recollect, was torn limb from limb by four young horses. The hospital itself, the medical faculty of Harvard University, all fall under the weight of his mighty indignation. He denies that any dislocation was present—calls the reasons assigned by Dr. Warren, and the consulting physicians for their opinion, a perfect fallacy—opposed to the most obvious principles of anatomy—and stiles the conclusion drawn by them, "a hallucination of the most extraordinary character itself—

such as could hardly have been expected of a surgeon of three months standing—"

On the trial several medical practitioners (one of whom is designated as "of high standing in the profession") gave it as their opinion that no dislocation was present.

These opinions and this publication have induced Dr. Warren to appear before the public. The remainder of his letter is occupied in discussing two questions.

1. The existence of a dislocation in the case of Mr. Lowell.
2. Its peculiar nature, and whether, according to the authority of Sir Astley Cooper, the kind supposed to have been here present is impossible?

One of the physicians examined Mr. Lowell six months after Dr. Warren and his colleagues, and gave it as his opinion, under oath at the trial, that no dislocation did then exist, and he moreover intimated that none had ever existed. He objected that the manner in which the accident happened was such as to render it scarcely possible that the hip should be dislocated. "A fall on the hip, with the weight of a horse upon it, would be likely to break the bones of the pelvis, and might drive the head of the bone through the bottom of the socket, but could not dislocate the joint; and in my opinion, (he says,) if there is any derangement of the bones, it is a fracture and not a dislocation." The reply to this, by Dr. Warren, is one which we should suppose must call up a blush on the check of this "physician of high standing." "Mr. Lowell informed me and others, that he fell on his back; and Reynolds, the only witness of the circumstances of the fall, swears positively to the same effect." This physician also ventured an opinion of some novelty in surgical practice. "I should not think that a hip-joint, having been out of place six or even eight weeks, would render it impossible to reduce it. It might even be a *more favourable time* for the operation than immediately after the accident, especially if the soft parts were much bruised and swollen."

Another physician was present, with the professional gentleman we have just noticed, at the examination of Mr. Lowell. He was of opinion, that the injury did not arise from dislocation at present existing, but from affection of the muscles, or *some other cause!* The remaining medical men (two in number) considered the case to be injury or fracture of the bones of the pelvis. Yet neither of these, according to the positive assertion of Mr. Lowell, (page 33), ever examined him.

Dr. Warren now enters into an interesting surgical discussion as to the symptoms of dislocation of the hip-joint—corroborating and illustrating his remarks by quotations from the most approved writers on the subject, such as Boyer, Samuel Cooper, and Mr. Wilson, the late eminent anatomical teacher in Windmill-street, London. Having shown, that all the marks mentioned by them were present in the case, he next inquires, how far these are applicable to the other injuries supposed to have existed by the medical witnesses of the defendants? In fracture of the bones of the pelvis (always a dangerous occurrence) the limb is shortened, the axis of the limb is not changed, the power of moving the limb is increased, the muscles are shortened and relaxed, and there is a grating of the fractured pieces of bones on each other. None of these were present in Mr. Lowell. As to the idea of contraction and relaxation of the muscles, producing so permanent and striking an effect, we can hardly believe any person versed in the subject can for a moment entertain it.

The positive testimony in favour of a dislocation actually existing, is the opinion of Dr. Warren and his four colleagues, Dr. Benj. Brown of Waldoborough, and Dr. Eastalrook, all of whom particularly and minutely examined the patient at different times.

Much stress appears to have been laid on the impossibility of the occurrence of a dislocation downwards and backwards, because Sir Astley Cooper did not (as was stated) believe that such a species of dislocation could exist. The expressions used by that eminent surgeon are, however, far from warranting so broad an assertion.

"A dislocation backwards and downwards has been described by some surgeons who have had opportunities for observation, but I have to remark, that no dislocation of that description has occurred in St. Thomas' or Guy's Hospitals for the last thirty years, or in my private practice, and I doubt its existence, though *I would not deny the possibility of its occurrence*, but am disposed to believe some mistake has arisen on the subject."

In a subsequent page the same remark is repeated, with the following additions and explanations.

> "If such a case does ever occur, it must be extremely rare. I cannot help thinking that some anatomical error must have given rise to this opinion, as in the dislocation downwards and backwards the head of the bone is described as being received still into the ischiatic notch; but this notch is, in the natural position of the pelvis, above the level of the line drawn through the middle of the acetabulum; and thence it is, that the leg is shorter, not longer, where the bone is dislocated into the ischiatic notch.' Page 77.

The explanation given by Dr. Warren, of this *anatomical mistake* deserves the attentive perusal of every surgeon, and we regret that our limits will only permit us to glance at his most satisfactory elucidation. Several plates are given, illustrative of the various species of dislocation; and a minute description of the parts concerned is followed by extracts from the works of Soemmering, Boyer, and Mechel, showing that they describe two ischiatic notches—the superior, or great—and the inferior, or little.

> "Sir Astley Cooper alluded to what we call the *upper part* of the ischiatic notch—what Boyer and the French anatomists generally have described to be the upper part—what Soemmering names the superior ischiatic notch—or, if rightly denominated, the *iliac* notch That which Sir Astley calls the ischiatic notch, is really above the socket; but what the continental anatomists so name, extends both above and behind. A dislocation in the upper part of it is above the socket, and the limb is shortened; a dislocation in the lower part, or on the surrounding bone, is below the socket, and in such, the limb would be shortened." p. 78.

Extracts are now given from the writings of several eminent surgeons, showing, that they believe in the existence of the species of dislocation in question. They are from William Lawrence (in Rees' Cyclopedia)—Richerand—Leveille, author of the systematic work called "New Surgical Doctrine"—Delpech, the present professor of surgery at Montpelier—the late Dr. Dorsey, in his System of Surgery—and finally, from the late work of Lisfranc.

Whether the arguments used and the authorities quoted by Dr. Warren, are sufficient to establish the correctness of his treatment and his opinions, is not with us a question. It requires, we fancy, more surgical talent than was evinced either by the defendants or their witnesses to overthrow the mass of evidence that is collected in this work. We cannot, however, conclude our notice of it without indicating some points for reflection: and the first to which we beg leave to advert, is the conduct of the legal profession in their treatment of medical witnesses on trials. We are free to allow that the present is an extreme case. We are willing to admit that few advocates could be found to use such language as is here given in the Appendix, condemning Dr. Warren and his colleagues; but we must, at the same time, state the fact, as an undoubted one, that too much latitude is generally allowed and taken with medical character. There may be (and we are sorry to say it) individuals whose ignorance or presumption deserve rebuke; but even these hardly require to be denounced—blackened—ruined. And yet there is scarcely a case, that we have seen reported for many years, in which a great freedom of speech is not permitted concerning the talents and medical standing of individuals; their observations are perverted, and it has happened that some advocates have even given their medical information (magnificently great as it must be) a preference over that of aged practitioners, who unfortunately happen to testify on the opposite side.

On the other hand, it is a matter of astonishment how, with these facts full before them, physicians appear so desirous to rush into courts of justice to give their testimony. Can the little temporary eclat of relating a dissection—of explaining their treatment in an uncommon case—or of enumerating their experiments,—compensate for the sneers, the jibes, the calumnies, of an advocate, whose faculties are sharpened to detect the slightest errors,—and who, if he cannot find, will make them? But it is too true, that he generally does find them. Look at the case before us, and observe the lamentable looseness of testimony as *to facts* in one of the defendants' witnesses, and the boldness of assertion in the others. We commend such witnesses to the lawyers we have above noticed; but we desire that the latter will not insult honourable men, who are forced by legal process to give an unwilling testimony.

Judges, too, sometimes fancy their knowledge of medical matters very profound. In this case the bench appears to have quoted Sir Astley Cooper with great readiness; and in his address to the jury, insists much on the opinion of that surgeon. We do not object to this; but we think he should have looked to it to quote accurately. (See p. 109.)

Judges have sometimes a most delicate part to act, viz.—to discriminate between the knowledge and acquirements of various medical witnesses. We have known one to say to the jury—Dr. A. is a profound chemist—his opinion is to be perfectly relied on; (and by implication, of course, those of a different one were not); while the testimony of this same chemist would not have stood the scrutiny of a student who had paid tolerable attention during a single course of lectures.

The remedy for these evils has been already hinted at in a former number. Let a set of men be particularly educated as examiners in medical cases—and, of course, as witnesses. The facts will thus be settled; and their qualifications will give force to their opinions. If any are disposed to question these, the grounds for discussion are laid out, and the differences can be understood. In this way, also, these examiners become vested with a sort of legal function, which may occasionally serve to enlighten the bench.

Art. II. *A Review of the Diseases of Dutchess County, from 1809 to 1825; being the subject of two Addresses, read before the Medical Society, at their annual meetings in 1819 and 1825. Also, an Essay on a Disease of the Jaw Bones. To which is added, an Appendix, containing Notes and Elucidations.* By Hunting Sherrill, late President of the Dutchess County Medical Society. New-York, 1826. 8vo, pp. 184.

The history of disease has probably received a greater share of the attention of physicians in this country, and been more successfully cultivated by them, than any other branch of medical learning. The writings of all our distinguished authors, and almost every number of our successive and numerous periodical publications, might be safely appealed to in confirmation of this fact. Such an appeal would, at the same time, afford ample and gratifying opportunities of observing the rich and important contributions rendered by our countrymen to medical knowledge; and if the observation of the illustrious Sydenham be not founded in error, that the improvement of physic depends upon collecting a genuine and natural description or history of all diseases that can be procured, and laying down a fixed and complete method of cure, entitle them to a pre-eminent rank among the zealous promoters of science and the effective benefactors of mankind. In claiming thus much for American physicians, we trust we shall not be suspected of a disposition to indulge in idle national vanity. Our object in introducing these remarks is widely different, more elevated, and, we trust, more useful. It is, on the one hand, to remind our professional brethren of the causes which have hitherto led to this direction of the medical mind of the country, and which still continue to stimulate their inquiry, and elicit their talents and industry; and, on the other, to offer a few observations on the best method to be pursued in the important investigations of the causes, nature, and treatment of disease. Difficulties beset the task, and but a very limited scope is afforded in these pages even to its partial accomplishment; but its importance will secure indulgence to our attempt.

I. 1. Extending from the twenty-fifth to the forty-seventh degree of north latitude in length, and from the Atlantic to the Pacific oceans in width, the United States comprehend every possible diversity of climate and situation. To the tropical heats of the southern states may be opposed the arctic cold of the northern, and to the moist and variable atmosphere of the maritime coasts the equable and dry of the interior and mountainous regions. Independently of these more general features of difference, there exists every variety of locality which topographical situation can confer—hills, valleys, and plains—sterile wastes and fertile tracts—sandy deserts and marshy swamps—large rivers and ocean-like lakes—together with all the minor shades of character arising from the peculiarities of vegetable and animal productions accommodated to individual regions.

Endowed to a certain extent with the power of resisting external agencies, and enabled by reason and experience to prevent and remedy their evil effects, man is nevertheless sensibly affected by them, and sooner or later becomes moulded in his moral, no less than his physical features, by the impressions of climate. An attentive view of the condition of the inhabitants of this country will fully illustrate this fact, and lead to an important step in the investigation of their diseases.—The northern and eastern inhabitants of our empire will be found to differ essentially from their brethren of the south and west; and although this difference has not yet had time to reach its maximum, on account of the too recent settlement of the country, it is sufficiently striking to arrest attention. If it be not, however, palpable during health, it is most amply developed in the hour of disease. The inflammatory and acute diseases, which prevail in elevated, dry, and cold situations, are forthwith exchanged on a removal to low, moist, and warm places, for low and chronic affections; fevers, attended by the diseases of the chest, for those in which the abdominal viscera are implicated; and emigration from the sea-coast to the interior, removes, in a great degree, the liability to that fatal scourge of the Atlantic states—consumption. How great a variety of morbid phenomena must occur under all these aspects of differing seasons, climates, and situations, is sufficiently apparent; and to this circumstance we may safely attribute, in part, the numerous and interesting histories of disease with which the medical annals of our country are enriched, and which have tended in no small degree to enlarge our knowledge of the relations subsisting between diseases and their more general and pervading causes. This circumstance still continues to operate, and as much remains to be done, it will open to the medical inquirer an unbounded field for observation and reflection.

2. The political history and condition of the United States have exercised an important influence over the habits of the people, and consequently cannot have failed to modify the features of their diseases. The more immediate effects of the revolutionary war, and of the freedom which it so dearly bought and permanently secured, have been recorded in an interesting memoir, written by Dr. Rush, himself an active and zealous participator in the important events which led to the termination of the one and the achievement of the other, and an acute observer of their influence over the minds and fortunes of his fellow-citizens.* If the stimulus of novelty, which operated so powerfully in the early periods of our history, has ceased to act, the invigorating influence of a sense of freedom continues still to put forth and display its healthful energies The general diffusion of knowledge, the intelligence, the elevated tone of morality, the salutary restraints of religion, and the love of country—the mental and bodily activity, the ardent and indomitable spirit of enterprise, every where aroused and nurtured by the incitements of political, scientific, or literary ambition—by the desire of wealth, and the characteristic abhorrence of dependence—all combine to exert a powerful agency in moulding the temperaments, constitutions, and manners of our citizens. And it is scarcely necessary to point out the inseparable connexion which unites these moral agents with the causes and peculiar characters of the diseases of a people. While we enumerate the favourable

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* See Rush's Inquiries and Observations, vol. 1.

constituents of our national character, let us not altogether overlook the unfavourable ingredients which unite with them and bring us to a level with all humanity, a mixture of good and evil. A spirit of licentiousness—the indulgence of malignant passions, and too great a fondness for excesses, especially in the use of spirituous liquors, are among the prominent vices, from the charge of which certain districts, more especially cannot be altogether exonerated. That they are peculiar to our form of government, or inseparable from our condition, in other respects so enviable and unparalleled, we do not believe, and are not in this place permitted to inquire. They are here exposed, with the simple view of citing their modifying influences upon the diseases incident to our countrymen.

3. Another important agent in modifying the diseases of the United States, is the mixture of different varieties of the human species, which long-continued and extensive emigrations from remote countries have here brought together in the anxious search for repose and happiness. The sanguine temperament of the northern nations of Europe has amalgamated itself with the bilious constitutions of the southern, and both have not disdained to mingle their currents with the lymphatic or phlegmatic disposition of the Hollander, engendered in fogs and ‘ dull as his lake that slumbers in the storm.’ The diseases peculiar to each one of these distinct varieties become, of consequence, subjected to great and frequently entire alterations in their nature and modes of treatment, presenting novel phenomena and indications, and requiring in the physician skill bold and original.

4. A fourth circumstance to be considered in the history of the diseases of this country, is the more or less recent period in which particular districts were first settled. All the gradations between the most simple and the most refined conditions of life, from the first faint dawn of civilization to the meridian splendour of luxury, may be discovered in glancing over the different portions of the union—here resembling the oldest and most wealthy regions of Europe—there approximating to the rude haunts of the helpless and uninstructed savage.

The important influences of these different states of being on the moral and physical character of man, have long been the subject of philosophical investigation, and their power in modifying the phenomena of diseases will not be disputed. In connexion with this subject that of emigration, as affecting health, will not be lost sight of.

5. To the causes already enumerated, as offering particular stimuli to the investigations of the medical philosopher, in this country the prevalence of the fearful epidemic, known by the title of yellow fever, deserves to be added. Few subjects have ever presented such unbounded limits for inquiry, and awakened such undiminished ardor for discussion and discovery as this. Arrayed in a most awful form of malignity and destruction, setting ordinary skill at utter defiance, and laughing to scorn the antiquated prejudices of the schools and the prescriptive laws of an inadequate and inapplicable police, this monster every where awakened the spirit of curiosity, and provoked intellect and industry to a zealous but patient investigation. Reformation in our medical theories, a bold and original practice, and a host of illustrious names, at the head of which let us gratefully remember that of RUSH, have been the fruits of this contest and of the labours to which it gave rise.

Such are some of the leading circumstances which have influenced the direction medical literature has pursued in the United States, and their continued agency warrants the anticipation of still wider harvests of accession to science, and of renown to the fortunate labourers.

II. When Hippocrates was asked, who is the physician that is an honour to his profession? his reply was—“ He who has merited the esteem and confidence of the public, by profound knowledge, long experience, consummate integrity; who has been led through the whole circle of the sciences; who has a due regard to the seasons of the year, and the diseases which they are observed to produce, to the states of the wind peculiar to each country, and the qualities of its waters; who marks carefully the localities of towns and of the surrounding country, whether they are low or high, hot or cold, damp or dry; who, moreover, neglects not to remark the diet and regimen of the inhabitants, and, in a word, all the causes that may produce disorder in the animal economy. Simple as these requisites to the formation of a skilful physican may appear, they are not to be attained but by an exquisite discernment, a sound judgment, and the most unwearied industry; and where these are possessed, it is gratifying to know that they are, in general, accompanied by that liberal spirit, and that honourable love of distinction, which incite the possessor not to rest satisfied with hoarding up for his private use the accessions he makes to knowledge, but to communicate them to the world for the benefit of his contemporaries and of those who may succeed them. In the present age, and in the medical profession, this desire of communicating knowledge burns with an intensity of ardor that requires direction rather than incentive. There is, in fact, far greater inconvenience to be apprehended from the cacoethes scribendi, to which we owe the unnecessary multiplication of books, than from the grovelling passions which confine knowledge within the limited sphere of the owner's breast. In this country, where so many causes incite to authorship, we have, accordingly, no reason to complain of the want of *new books*. Within the last few years, more especially, our shelves have been literally crowded with text books, either original, compiled, or foreign, enriched with additions for domestic use, with histories of diseases that have appeared in particular districts of our country, and with novel theories of fever innumerable. To the second class of writings our attention has always been carefully directed; and however unequal we may have found the productions, we always consider ourselves amply repaid by the local information they convey. It has too often happened, however, and we regret to repeat the complaint in the instance of the little work whose title stands at the head of this article, that authors, while writing expressly descriptions of endemic diseases, neglect to make their readers acquainted with those important topographical details, without which their histories are both unsatisfactory and void of interest. To obviate this deficiency is one object in these remarks and those which follow; and we shall, therefore, be pardoned if we dwell, perhaps tediously, on what may be considered common places.

To render descriptions of endemic or epidemic disease a valuable accession to medical knowledge, the rules of Hippocrates, already quoted, must be carefully adverted to. A short amplification of some of them, and the enumeration of others, will point out their importance.

1. *Celestial and terrestrial phenomena.* The appearance of comets and meteors, the periodical revolutions of the planets and their satellites, that of the moon more especially, the eruptions of volcanoes, the convulsions of earthquakes, violent tempests, and extraordinary seasons, have all been supposed to have a direct influence in the production and diffusion of epidemic diseases. Whether or not this hypothesis be founded in truth, the numerous facts which have been collected by the industry and research of our countryman, Webster, go far to show that there is an intimate association between the occurrence of these phenomena and that of epidemics, and they deserve, therefore, a place in the records of every medical inquirer.

2. *The sensible qualities of the atmosphere.* The essential constituents of the air we breathe, as oxygen, nitrogen, and carbonic acid, are uniformly found, at all times and in all places, to exist in the same definite proportions. Even the air of marshes has been found by repeated experiments made by several distinguished physicians, and more recently repeated sixty times by professor Julia of Lyons, not to differ from atmospheric air in any principle of which chemical analysis can discover the existence. It is then to the adventitious principles which combine with the atmosphere, such as light, caloric, electricity, and aqueous vapour, that we must look for the causes of disease. The innumerable variations these elements are constantly undergoing, must inevitably exert a more or less powerful agency on the health and lives of animated beings, and therefore form a prominent subject for examination.

a. The influence of light upon the animal economy has not yet received all the attention to which it is entitled. The general health of man, it has however been justly observed by Dr. Parr, one of the most learned physicians of our age, is apparently connected with light; and "the peculiar acid of the animal system, the phosphoric, has a powerful attraction for this element, and appears to contain it, not only in a chemical combination, but, when in the form of an oxide, unites with and allows it to separate without decomposition."* Certain it is, that the complexion of a man, long confined in darkness, becomes sallow, his skin liable to foul exulcerations, and his whole system languid and not unfrequently dropsical. The consequences of long continued and intense light, emitted from the unclouded sun in Egypt and other similar situations, are well known.

b. Heat and cold exercise an influence not to be disputed in the production of disease, and their relative degrees deserve, on this account, to be accurately noted. The tropics and the north of Europe are proverbially subject to the inroads of wide and devastating epidemics. The thermometer should be an indispensable part of the domestic furniture of a physician who resides in the country.

c. The opposite states of humidity and dryness in the atmosphere are not to be overlooked. Moisture, if not directly unpropitious to health, forms, nevertheless, a most ready vehicle for such poisonous substances as directly cause disease; and dryness long continued, especially in hot climates and in hot seasons of temperate climates, has been known, from the days of Hippocrates, to produce the most deleterious effects. The operation of *rains*, in changing the character of particular districts for salubrity, will be sufficiently obvious.

d. The density and rarity of the atmosphere, and the prevalence of particular winds, will also deserve notice.

3. Next to the qualities of the air come to be considered *those of the soil, its geological history, and the chemical com-*

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* Parr's Medical Dictionary, article *Lumen.*

position of its waters—the general features of the country, whether it be hilly or low ground, fertile or barren, whether it contains marshes, and whether it is in proximity to the sea, &c.

4. The *botanical and zoological histories* of the region described are, on no account, to be omitted. No justifiable apology can be offered for a neglect of this important item at the present day, when the opportunities for the cultivation of natural history are so numerous, and a knowledge of it become an indispensable requisite of medical education.

5th and lastly. We ascend to man himself, and ascertain, as far as we can, his physical and intellectual condition. His bodily constitution and strength; his habits, as respects diet and regimen; his moral propensities and sensibilities, the energy of his thinking faculties as developed by his moral, political, and religious condition, will all tend to illustrate the etiology of the diseases to which he is subject, and explain the greater or less mortality of different portions of the earth. These subjects, it may be urged, are extensive and even difficult of investigation, but they are in proportion important and cannot escape the discrimination and perception of a skilful and observing physician. His previous liberal education, his acuteness and sagacity, cultivated by an intimacy with mankind in all the relations of life, his perseverance, lofty ambition of professional distinction, and an active and enlightened philanthropy, will smooth the path of labour and ensure value and success to his exertions. It may still be argued, that a knowledge of all these subjects has hitherto been found inadequate to the solution of the difficulties connected with the histories of disease. The fallacy of this argument will sufficiently appear, when it is considered within how short a period true principles of medical logic have been cultivated, and the sciences, which chiefly aid the researches of physicians, as natural history, chemistry, physiology, &c. attained their present improved state.

Dr. Sherrill's book, which has betrayed us into these remarks, contains two addresses, exhibiting a very cursory account of the diseases which have prevailed in his neighbourhood during the last sixteen years. Deficient in the collateral observations, on the importance of which we have been expatiating, it is devoid of that interest which generally attaches to similar essays. This is the more to be regretted as it does not present us with any novel features of disease, nor suggest any improvements in practice. The language too is faulty, and frequently not free from inelegancies. Wishing, however, to preserve in our pages a record of all facts connected with the history of the diseases of our country, we shall present our readers with a brief analysis of Dr. Sherrill's account.

In 1809 Dr. S. commenced practice in Dutchess county, and he found fevers of the intermittent and remittent type very prevalent, and assuming, in autumn, a bilious character. These fevers, when early and properly treated, yielded, in general, on the fifth, seventh, or ninth day. Sometimes they were protracted to the third week. The same fevers continued to make their appearance in 1810 and 1811. In the last year they were attended with an obstinate cutaneous eruption, extending into blotches and sores, and seldom yielding, except to active mercurials externally, and alteratives internally. The treatment of the intermittent form of fever consisted of the usual course of evacuants and tonics. Anodynes and Fowler's solution are favourably spoken of. The latter was given with great safety and success to children. Blood-letting was also had recourse to in obstinate cases, as recommended by Dr. Rush.

Remittents were treated in a similar manner.

The *winter epidemic*, described by our author, is the disease now generally known by the name of pneumonia typhodes, and presented the same symptoms here as elsewhere. Agues and chills ushered in the disease; sometimes great prostration of strength took place; violent pain in the chest; difficulty of breathing; pain in the head, back, &c.; nausea and bilious vomiting ensued; yellowness of eyes and skin, and occasionally dysenteric symptoms attended the disease. The tongue was white or tinged in the middle with yellow; its edges were of a lively red; yet, in some cases, it was perfectly natural. Cough was always present, when the chest was affected, and more or less expectoration. The heat of the skin frequently not increased, but rather diminished. The pulse is arranged by Dr. S. under six different heads: 1st, a slow pulse; 2d, an intermitting pulse; 3d, a depressed pulse; 4th, a frequent pulse—without tension flowing like an elastic tube partially filled with liquid; 5th, a hobbling pulse; and 6th, a tense, full pulse. The fourth variety was the most common.

There was a disposition in the disease to assume the malignant type, particularly where evacuations were not early had recourse to. Dissections, after death, showed the lungs and the heart distended with blood, and quite engorged.

Treatment. Bleeding used with caution; an emetic, followed by a course of cathartic medicines, or sometimes an emetico-cathartic of calomel and tartarised antimony, in the commencement of the disease. Sudorifics and expectorants, with a pretty liberal quantity of calomel, in the progress; and finally, nourishment, cordials, stimulants, and tonics, constituted the method of cure. Small bleedings repeated, and the cold affusion, were occasionally employed with advantage.

In 1814, a febrile disease made its appearance, which had its origin with the militia who were encamped near the city of New-York, and presented some symptoms evidently to be traced to the inconveniencies of a military life.

In 1819, diseases of the throat and lungs were common, attended with a determination to the head. They were relieved by large bleedings and other active evacuations. Scarlet fever also made its appearance.

In 1820, dysentery attracts particular attention. This disease was treated by early blood-letting, succeeded by emetics of ipecacuanha, or cathartics—of which calomel was a leading article.

Diaphoretics and anodynes were also serviceable. Astringents were employed as soon as the case would bear it; but harm resulted from their too early use. Fatal cases were in the proportion of one to twenty.

In recapitulating the diseases of 1821 Dr. Sherrill takes occasion to record the death of Dr. Samuel Bard, formerly President of the College of Physicians and Surgeons in this city, and a distinguished member of the medical profession in this country. We cheerfully give place to the following characteristic traits :

"As a physician, he had an active, discriminating mind and discerning judgment, well calculated to detect the intricate and obscure operations of morbid action, and to devise means to effect their removal. By his benevolent disposition, and perseverance in laudable undertakings, he perhaps did more for the advancement and cultivation of medical science than any of his cotemporary countrymen. Much is due to him for procuring the passage of the law by our Legislature, under the auspices of which we are this day assembled, and out of which has grown that advancing respectability of the medical character which, by the irradiating influence of science, has overawed, and almost obscured empiricism. Those who had an opportunity of meeting him within these walls, will readily bring to mind our then flourishing situation, when we were stimulated by his example, and edified by his maxims and his addresses. Although for many years retired from the city and from active business, he was not withdrawn from professional usefulness or benevolent purposes. He constantly, when required, gave counsel to those around him; and among the poor, sought out cases of sickness and want, on which to bestow gratuitous services. His wife, who was first attacked with the same disease, was his last patient, and he her last physician! He being soon attacked, was obliged to end his medical labours, and withdraw from her the day before she died—and in his turn became a patient. During his short illness, he displayed his usual vigour of mind and promptness of decision. He conversed with me and his friends, with calmness, on the nature of his disease and the approach of death. More than once he expressed in substance a couplet that he had used on another occasion :

'O God! direct my erring mind to things above;
Teach me to place my bliss in faith, and hope, and love!'"

pp. 65, 66.

In 1825, remittents again made their appearance. We do not observe any modification of consequence in the treatment.

Dr. Sherrill relates the introduction of small-pox from one source and the varioloid from another. His conclusions respecting these two forms of the same disease, confirm those of preceding writers.

In his observations on pneumonic diseases, Dr. S. confirms an observation we made when reviewing the Essays of Drs.

Miner and Tully, on the asthenic characters of the diseases which fell under their notice. He states, that, in his county, it would prove a dangerous delusion to adopt the position of Dr. Miner, that the inflammatory nature of disease has entirely left our country.

Puerperal Fever. The opinions of our author on this disease are, generally speaking, correct, except on certain points in which they have been influenced by the verbal opinions of those who too frequently resort to hearsay evidence as a support to their crude and ill digested notions. Thus one physician was informed, *on very respectable authority*, that puerperal fever prevailed *several years ago* in a neighbouring state and proved fatal. What authority was in this instance relied on? That of nurses, or farmers, or ignorant physicians? Shall we, on such grounds, refuse to range the disease among those of an active inflammatory or oppressively congestive class, both requiring powerful evacuation in the first stage? As well might we class yellow fever and dysentery among diseases of debility, requiring only diluents and the mildest laxatives. Proh pudor!

Treatment. Free venesection, large doses of calomel, aided by cathartics. To relieve the aggravated pain which accompanies this fever our author recommends a large bleeding, say from twenty to sixty ounces, within the first twenty-four hours, followed by calomel, ipecacuanha, and opium; of the latter three grains at first, and one or two to be repeated every three hours, till it has produced its effect. Sinapisms and fomentations, and afterwards a blister, are also recommended.

We shall select one case from those recorded by our author in support of his practice.

"Mrs. B———, aged 24, after a labour in no wise peculiar, was delivered on the 30th of September.

"October 2nd. Forty-eight hours after delivery, she was attacked with severe pain in the head, small of the back, and sacrum, together with general soreness and tension of the abdomen. The pain through the uterine region was also particularly severe. The tongue was slightly furred, white in the middle, and fiery red on the edges: the skin was very little heated. rather inclining to clamminess. Her breathing was laboured, somewhat resembling that of a lady in tight-laced corsets, seeming to exert the diaphragm only. The secretion of milk was partially suspended, and the lochia totally suppressed. She was bled at 9 o'clock A. M. twenty ounces, and commenced taking five grains of calomel, one of opium, and two of ipecacuanha, to be repeated every three hours. Warm alkaline fomentations were applied to the abdomen. The bleeding was repeated to sixteen ounces in ten hours.

"9 o'clock P. M. Some nausea, and a little vomiting induced. The breathing rather improved; pain considerably abated; the pulse rounder and softer. The lochial discharge has appeared: she sweats copiously. Omitted the fomentation, and applied a blister to the abdomen.

"Oct. 3d. The medicine began to purge at 10 this morning; before which the pulse became quicker (120 in a minute) and smaller, and the tongue more furred.

"10 P. M. The pulse has fallen to 95, and become more natural; the heat and fever considerably abated. She sweat gently; had some strangary; very little pain, except from the cathartic effect of the medicine. The calomel and ipecacuanha were discontinued, and two grains of opium given.

"Oct. 4th. 7 A. M. During the night she has had several stools, attended with some pain. Sweat freely the whole time, and obtained some easy and natural sleep. The scurf mostly removed from the tongue. She took twenty drops each of laudanum and tincture of kino after each stool.

"10 P. M. During the day, took a gill of wine. After it she had a little fever, and the pulse became more tense. The wine was omitted, and simple nourishment recommended. At evening, fifty drops of laudanum were given as an anodyne, and the laudanum and kino mixture continued as before.

"Oct. 5th. Rested well last night, and appears very tranquil: has strength to assist herself quite well; and seems free of disease.

"6th. Convalescent."—pp. 97, 98, 99.

Caries of the Jaws of Children. Dr. Sherrill republishes a paper he had read several years ago before the Medico-Chirurgical Society of the University of this State; and, as it relates to a subject not ordinarily touched upon, we shall here give a brief account of it.

The disease has recurred repeatedly in charitable institutions in this city and Philadelphia.

Symptoms. Slight swelling and pain in some part of the jaw, generally the upper one. One, two, or more teeth become loose, and begin to turn black about the cervix. The gum is detached from the teeth and evidently corroded, so that the jaw-bone becomes visible, black, and dead. The breath is very offensive; the lips swell, and the teeth painful. The bowels are troubled with diarrhœa. If the disease be not arrested, the jaw is more and more denuded, the teeth and mortified jaw may with ease be taken away. The face, tongue, and fauces, are swelled; there is difficulty of deglutition; more or less fever; great languor and debility, and the discharge from the diseased surface is so acrid as to corrode the skin.

Causes. Crowded and ill ventilated apartments, meagre diet, especially composed of substances very liable to acetous fermentation, are suggested by Dr. S. The neighbourhood of marshes seems to have had influence in the cases recorded by Dr. Coates of Philadelphia.

Treatment. Astringent gargles, especially sulphas cupri. These suffice in mild cases, together with the extraction of the diseased teeth. In severe cases, these gargles must be made stronger, and bark with cordials is indispensable.

There are added to the description of Dr. Sherrill two letters, the one containing a recapitulation of his own views, together with a few extracts from other authors; and the other a reference to Dr. Coates' paper, with an extract from the lectures of a professor, not imparting a single new idea.

Dr. Sherrill would have sustained the reputation of his work much better by omitting these jejune volunteer contributions.

QUARTERLY HISTORY

OF

IMPROVEMENTS IN MEDICINE AND SURGERY.

Foreign.

PHYSIOLOGY.

Abstract of Experiments on the passage of certain substances into the urine.

By Dr. Wöhler.*

Indigo.—Messrs. Tiedemann and Gmelin found in a horse who had taken a pound of the sulphate of indigo neutralized with potass, the urine changed into a greenish blue. M. Wohler observed the same thing in a dog.

Rhubarb.—It is pretty well known that rhubarb yellows urine, and that it reddens when potass is added. This fact has been ascertained by Tiedemann and Gmelin, Home, and Westrumbs; the latter found his urine to be changed ten minutes after the ingestion of the substance. Bradner Stuart experienced the same result from a rhubarb bath. The red beet-root tinges the urine red; the root of the cheledonium magnum (*celandine*) produces a yellow colour, very well marked; and so does gamboge. Reil, in his *Fieberlehre*, maintains, that sheep who have made use of the *ciscus laurifolius*, emit red urine; and, according to Wildenow, the same thing occurs from using the greater number of the *cacti.*

If we mix an acid with the urine of those who have eaten myrtle berries, we will often find the clear reddish colour of wine. This is exactly what takes place when the juice of the *vaccinium myrtillus* is treated with an acid or an alkali. The uric acid which is precipitated from these kinds of wine, has always more or less of the colouring principle of the myrtle. We have the same results from black cherries and mulberries. Damas, prunes, and cassia nigra have also the same effect.

Odorific Organic Principles.—Every one knows what effect the oil of turpentine produces on the urine of men and animals, whether it be taken internally or applied to the skin. M. Wohler thinks that the violet odour is neither more nor less than the ordinary odour of urine, mixed with a very small quantity of oil of turpentine. Nevertheless, it has not been possible to produce this effect by the mixture of these two substances. This, he thinks, is owing to the imperfect mixture; which is, however, completely effected in the kidneys. Juniper berries, it is said, also communicate the odour of violets to the urine.

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* Zeitchrift für die physiologie, No. 2, 1825.

John says that the urine of those who make use of valerian emits a smell like that of myrrh; he even pretends that castoreum, opium, assafœtida, and saffron, give each its peculiar odour. The effect of asparagus on the urine is well known. The herba jaceae (*violette tricolore*) gives to the urine of those who take it the smell of a cat's urine.

Narcotic Principle.—The use which the inhabitants of Kamschatka make of a certain mushroom (*a. muscarius*) is well known. What is very remarkable, the urine is said to possess the same intoxicating qualities as the mushroom, and even in a higher degree. Langsdorff asserts that these people treasure up this urine which they use for intoxication! Nay, he maintains that certain individuals gather the urine of others, and that the effect produced, like the perpetual pills, goes to the fourth or fifth individual! The case of a young girl, recorded by Bachetoni, who emitted oil with her urine, after having taken the oil of sweet almonds three days previous, is here noticed by the author.

Morbid matters formed in the body, and secreted with the urine.

Albumen.—In dropsies this substance is often found in the urine. As soon as the collections of water disappear, however, the albumen is no longer to be found.

Chyle.—The ancients spoke sometimes of chylous and gelatinous urines. Prout has proved that their opinions were not altogether incorrect. In cases of dropsy occasionally, and frequently in the *morbus maculosus hæmorrhagicus* of Werchof, blood has been observed. As to the observations on bile, the experiments of Orfila are well known; and with regard to diabetes, the sugar that is found in the urine is sufficient to prove that it can be formed in the body.

Of Substances, the passage of which into the urine is doubtful, and of Substances which do not enter.

Carbonic Acid.—M. Wohler coincides with the opinions of Marcet and against those of Vogel, Prout, and Brande; which is, that this acid does not pass into the urine. That the quantity which is found is only the quantity that was in the blood itself. He thinks that he is able to affirm this fact from experiments made on himself.

Iron.—Direct experiments have convinced the author that this metal passes into the urine. Lead and bismuth never enter, neither do cochineal nor turnsol.

Mercury and Camphor.—Mercury was not found by the author. His opinion is opposed to Cantu's, and coincides with Gmelin's and Tiedemann's.

Camphor, concludes the author, is never evacuated by the kidneys, but by the lungs and skin.

PART II.—*Physiological Conclusions.*

1. The following substances have not been found in the urine. Lead, alcohol, sulphuric ether, camphor, the animal oil of Deppel, musk, cochineal, turnsol, and carbonic acid.

2. The following substances have been found, but decomposed. Hydrocyanate of potass, and deutoxide of iron, are changed into hydro-cyanate of potass and protoxide of iron. Tartrates, citrates, malates, acetates of potash and soda, are changed into carbonates. Hydro-sulphate of potass is changed into sulphate of potass.

3. The substances which enter into new combination with the substances they find in the body, and are evacuated by the kidneys. Sulphur is changed into sulphuric and hydro-sulphuric acids. Iodine into a hydrooxate, oxalic, tartaric, gallic, succuric, and benzoin acid, are found in combination with an alkali.

4. The substances which pass into the urine without decompositions, are the carbonate, chlorate, nitrate, and sulphate of potass. Hydro-sulphate, and hydro-cyanate of potass. Protoxide of iron, borate of soda, muriate of barytes, silicate of potass, tartrate of nickel and potass. Many colouring matters, such as those of the sulphate of indigo, gamboge, madder, logwood, beet-root, mulberries, and cherries. Many of the odoriferous principles, partly altered however, such as the oil of turpentine, the odoriferous principle of the juniper berries, valerian, assafœtida, garlic, castoreum, saffron, and opium. The narcotic principle of the *fausse oronge*, and, in the morbid state, thickish oil.

The first set of substances are either destroyed, altogether altered by the process of chylification and sanguification, or they are used for nutrition, or evacuated by other organs. Some of them are made insoluble and incapable of being absorbed.

The substances belonging to the second class are oxidized either by animal matter, or in consequence of respiration; such as the hydro-sulphate of potass. This last effect probably takes place in the vegetable alkalies, which are changed into carbonates in the blood. That it does take place in the blood, M. Wohler thinks he is entitled to conclude from certain experiments that prove it does not take place in the stomach.

Of the third class it is probable that uncombined acids do not pass into the urine unless they are given in very great doses. This fact appears to be confirmed by the experiments of Magendie and Berzelius.

Although the urine is not more acid than it usually is, it ought not to be concluded that the acid has not entered into the urine. This proves the inefficacy of small doses of acids in dissolving calculi.

Many of those substances which pass into the urine without alteration are diuretic. Thus it may be said that those substances which augment the secretion of the urine, are able to pass into the urine.

M. Wohler concludes from what has preceded, that all the substances which are soluble in the liquids of the body, that are not assimilated, and which are not decomposed and changed into an insoluble substance; those that are not destroyed by respiration or other chemical actions in the body; those that do not act in a manner too astringent; and finally, those that are not so volatile as to pass by the pores of the skin, or by the lungs; all these substances can pass into the urine. M. Wohler thinks, with Prevost and Dumas, that the constituent parts of urine are formed in the blood, and that they are simply evacuated, not formed by the kidneys.

Therapeutical Conclusions.

The power of the vegetable alkalis to pass into alkaline carbonates, and as such to pass also into the urine, make them useful in the treatment of the pathological formation of uric acid. They have an advantage over the alkaline carbonates directly employed, in not being hurtful to the digestive organs; in being more agreeable to take, and susceptible of being varied. The uric acid is besides soluble in the alkaline carbonates, as Wetzler has proved.

The fruits which contain a vegetable alkali, such as cherries, strawberries, &c. will answer perhaps more usefully. It is said that Linnæus cured himself of the gout by a diet of strawberries. Professor Chelins has lately made some very satisfactory experiments since this essay was written.

Notwithstanding this, it is evident that we cannot hold out much hope that an uric acid calculus, completely formed, can be dissolved, because supposing the dissolution to have been effected, the phosphorous earthy salts would be precipitated by the continued alkalescence of the urine, which instead of a calculus of uric acid, would produce a calculus of an earthy phosphate, which would certainly be no great advantage.—*Anderson's Quarterly Journal.*

Bostock on the Saliva during the action of Mercury.[*]—After a detail of his experiments, in which no trace of mercury was detected in the saliva, during ptyalism, Dr. Bostock remarks:—

"The conclusions which we may draw from the above experiments on the nature of the saliva discharged while the system is affected by the action of mercury, are sufficiently remarkable to arrest our attention. We learn from them, in the first place, that no portion of the mercury is actually present in the fluid, from which it follows that the effect of this medicine, although so remarkably manifested upon the salivary glands, must be produced through the medium of the system generally, and hence we may presume that all the organs destined for the secretion of mucus will undergo the same change. This change would appear to consist essentially in the conversion of the animal matter, from the state of a mucus to that of a serous, or rather of an albuminous fluid.

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[*] Medico-Chirurg. Trans.

"Now, although we are not sufficiently acquainted with the theory of secretion to know what are the minute operations which enable the capillary vessels connected with the glands to produce their appropriate fluids, yet we may form some idea of the relation which they bear to each other, as far, at least, as regards the greater or less complexity of the process. All those fluids, for example, which proceed from what are termed serous membranes, appear to differ from the serum of the blood solely in the proportion of albumen which they contain, and we may therefore conceive that they are generated by a process resembling transudation; and that this is, in a great measure, of a mechanical nature. In the secretions, however, which are discharged from the mucous surfaces, we find a change effected which is of a chemical nature, where a new substance is generated which did not previously exist in the blood. In what way the vital functions act, so as to convert albumen into the mucilaginous matter which forms the basis of saliva is, at present, beyond our power to ascertain; but whatever it be, we find that in the case before us, the operation of mercury upon these parts is to counteract the ordinary secreting process, and to reduce the action of the glands to that of mere transudation."—*Ib.*

PATHOLOGY.

Dr. Macmichael's Cases of Diseased Heart.[*]

1. *Case in which Tubercles were found in the Pericardium and Cavities of the Heart, as well as in the Lungs.*—J. Burrows, aged thirty-five; admitted April 4th, died June 2d, 1826. This man, during life, laboured under symptoms indicative of disease on the right side of the heart. He was originally admitted into the hospital for colica pictonum; and, upon the subsidence of this affection, the following symptoms claimed the attention of his physician:—

"The upper half of the body became œdematous; the countenance was livid, and occasionally of a purple colour; the breathing was unnatural, and at times even difficult; the pulse did not deviate much from health. There was considerable anxiety depicted in the countenance; that peculiar expression so characteristic of disease of the heart, or large vessels connected with it. In short, there was evidently an obstruction offered to the free transmission of the venous blood on the right side of the heart, causing an accumulation in that part, and turgescence in the large venous trunks. The serous infiltration into the cellular membrane, producing œdema of the upper part of the body, appeared to be the effect of this obstruction to the venous circulation.

"He continued in this state for several weeks. The little sleep he had was disturbed; medicines appeared to have but little effect, even as palliatives; the symptoms became more severe; the lividness of the surface, and the œdema increased; and he at length sunk, exhausted and worn out by the long continuance of his disease.

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[*] Medical and Physical Journal, for August, 1826.

"The preceding brief sketch will serve to connect the symptoms with the morbid appearances.

"*Dissection.—Thorax:* the lungs were completely disorganised; the parenchymatous structure was thickly studded with white tubercles, in different stages of development. Here and there this process appeared to be so far advanced as to have removed the tubercles themselves; the cysts which they had occupied now containing pus of a scrofulous character, and forming abscesses of different dimensions. Other parts of the lungs were found to contain a ligamentous structure, which was cut through with some difficulty. So numerous were these different morbid changes throughout the substance of the lungs, so dense was their structure, and so universally adherent were they to the surrounding parts, as to cause great difficulty in removing them from the chest.

"The pericardium contained tubercles, apparently of the same structure; these were situated around the base of the heart. At the angle formed by the reflexion of the pericardium over the surface of the heart, they were covered by the delicate serous membrane. On opening the heart and large vessels, this morbid growth was found to encroach even upon their cavities. A large tubercle, situated at the union of the two cavæ, and others surrounding the inferior cavæ, just after its passage through the diaphragm, had so straightened these vessels, that it was with difficulty that the little finger could be made to pass the obstruction. A similar morbid growth was observed in the right auricle, forming a considerable projection; this occupied the septum auriculorum, and thus implicated also the left auricle.

"*Remarks.*—This dissection satisfactorily accounts for the symptoms of venous congestion on the right side of the heart: and it is not at all improbable that death was caused by the long-continued circulation of imperfectly arterialized blood; indeed it is only astonishing how life could have been so long supported with such a diseased state of lungs. It is worthy of remark, that this patient never had cough, expectoration, or any other symptom of phthisis.

"Although Boerhaave is supposed to have described tubercles of the serous membranes, and Bichât, with De Haen and others have given more accurate descriptions of this disease, still (with the exception of the latter author,) Dr. Baillie appears first to have noticed tubercles of the pericardium. He states that they are of very rare occurrence, and that he has only met with one instance of their formation in that membrane. Dr. Baron, in his work on Tubercles of the Serous Membranes, has not treated of this disease in the pericardium.

"The above case was first supposed to be an example of the disease described by Dr. Baillie; but on making a more accurate examination, it evidently appeared to be merely a propagation of the tubercles from the lungs: for it was singular that not one of these formations was in an insulated state, but they were found to be invariably connected with tubercles arising from the lungs. Some of them appeared to be the bronchial lymphatic glands in a diseased state. There was no inflammation of the heart or pericardium. Proofs, however, of the independence of tubercles of inflammation for their production, have now ceased to be necessary. If a doubt on this subject does still remain, we have here an instance of these formations in the heart itself, still without any symptoms of inflammation during life, or marks of the existence of such a state exhibited after death.

"2. *Case of Enlargement of the Heart, (the presence of which was not manifested by the symptoms) and of Acute Hepatitis.*

" April 7th, 1826. James Fisher, aged thirty-six, was admitted, on the 5th, with slight rheumatic symptoms: indeed, so slight were they as to lead to some doubt of the necessity of his becoming an *in-patient.* The bowels were opened, and some camphor mixture, with colchicum, given every six hours. Next day, his rheumatism was better, but some yellowness of the skin was observed. The tongue was clean, and the pulse natural. During the night of the 6th, the apothecary was suddenly called to him; he found him complaining of pain at the scrobiculus cordis and right hypochondriac region, which was increased on pressure; his breathing was oppressed. These symptoms continued to increase, and within four hours had acquired great intensity. The pain was very severe, and much aggravated by pressure; the respiration was difficult, with pain behind the right scapula; in short, the patient evidently laboured under an attack of acute hepatitis. Twenty-four ounces of blood were taken from the arm, from which he experienced great relief, and soon after fell asleep. The blood drawn was cupped, and its surface covered with a buffy coat of a yellow colour.

" About ten o'clock this morning, he died suddenly, having been seen about a quarter of an hour before, at which time he appeared to be much better, and expressed himself to that effect.

" *Dissection.*—The skin of the whole body was of a deep yellow colour. *Abdomen:* the liver was much enlarged, and of a purple colour. On making a cut into its substance, it exhibited a granulated and firm texture, arising from interstitial deposition. The vessels appeared to be gorged with blood; the peritoneal covering was perfectly natural. The viscus had evidently been some time diseased, but appeared to have recently taken on general inflammatory action.

" *Thorax:* the heart was of unusual size, and weighed two and a half pounds; a great increase, when it is remembered that the human heart, in a state of health, weighs only a few ounces.* The coronary arteries were thicker in their coats than natural, but there were no traces of ossification. The enlargement of the heart in this case presented some peculiarities. The right auricle and ventricle were much dilated, and the communication between these two cavities had suffered with the general enlargement so much, that the valves, in consequence, must have been incapable of duly performing their office. The walls of this ventricle were softened; the muscular parietes were pale and degenerated; in short, the right auricle and ventricle were as one large and flabby pouch, stuffed with a dark coagulum, and their structure corresponded to the softening of the heart described by Portal. The left cavities presented a striking contrast with the above description. The muscular walls of the left ventricle were thicker and more vascular than natural, forming hypertrophy of the left ventricle; the aortic valves were slightly diseased; but any mechanical obstruction which could have been offered by them was too trifling, and altogether inadequate to the production of this morbidly increased growth of the ventricle.

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* Lieutaud has described a heart which weighed five pounds.

" The lungs were found to be universally adherent to the pleura lining the ribs, and had suffered from a considerable effusion of serum into their substance.

" *Remark.*—It is remarkable that such extensive disease of the heart should have existed without the occurrence of any symptoms during life indicating its presence. This circumstance countenances the opinion of the late Mr. Burns, who states that symptoms of diseased heart seldom occur, unless inflammation supervenes, or the enlargement be of an active character."—*Ib.*

*Dr. Young's Case of Disease of the Heart.**

" *Case in which numerous small Cysts, some of which contained pus, and portions of Lymph, were found in the Ventricles of the Heart.*—July, 1826. Ann Goodall, aged twenty; has been subject for ten years to occasional palpitation of the heart and sensation of choking in the throat, with pain in the left side of the thorax, extending to the back and left shoulder, and accompanied with vomiting. The attack commenced with sense of obstruction at the scrobiculus cordis, rising to the left shoulder. and descending the arm to the veins and little finger of the left hand. At first, these paroxysms occurred very rarely; once only in several months, and did not continue more than an hour or two at each time. Within the last two years, they have become much more frequent. In the intervals, she reports that she was perfectly free from ailment.

" Since Christmas last, these attacks have increased in frequency and violence, and she has suffered four weeks, with only one intermission, from the present attack. *Pulse above two hundred*, occasionally too rapid to be counted; with throbbing of the carotid arteries communicated to the veins, through which the rapidity of the circulation is remarkably visible. The catamenia have not appeared for the last seven months. She sleeps only on the right side, and with her head raised. Burning heat is felt over the left side of the chest, with a sensation of great anxiety at the præcordia. Skin cool; no thirst; tongue clean; bowels costive; sleeps ill.

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* Med. and Phys. Journal, for September.

"It is worthy of remark, that during one interval of twenty-four hours, which took place while she was in the hospital, the pulse was ninety, and the symptoms greatly abated. With this exception, however, the symptoms continued to increase in violence until a few days before her death, when she became insensible, with occasional screaming and convulsions, particularly of the muscles of the upper extremities. The lower extremities became œdematous, and gangrene began to appear on the feet; and she died, August 9th.

"*Dissection.*—The feet and legs were in a state of mortification, with large vesications on the surface, and œdema of the whole subcutaneous texture of both limbs, as high as the pelvis.

"The lungs were more solid than usual, and contained a large quantity of watery fluid.

"The heart was rather large and fatter than is generally the case at so early an age. On opening the right ventricle, a quantity of solid substance was perceived, the nature of which it was at first difficult to discover, as it had some of the appearance of coagulated blood; but it was evident that a part of it only was the result of coagulation after death, and the remainder looked more like the contents of an aneurismal sac. On more accurate examination, however, it was found to consist principally of effused lymph, in masses of various shapes and sizes, and in different stages of formation; the colour being for the most part of a brownish yellow, but in some parts darker, as if mixed with blood. Many portions were loose and detached, but others adherent to the texture of the heart. Some formed distinct globular cysts, varying from the size of a pea to that of a small walnut; one cyst of the latter size being situated at the bottom of the ventricle. When these were cut open, the inner surface was reticulated, (in the same manner as may often be perceived in abscesses in the liver;) and some of them contained a few drops of pus, while others were entirely empty. The greater part of the lymph, however, was in the solid masses, easily torn or broken by pressure. The lymph was most abundant at the lower insertions of the fleshy columns of the tricuspid valve, but extended also into every hollow and sinus formed by the reticulated textur of the sides of the ventricles, in the lower half of its cavity, so as to make it doubtful, on first cutting the substance of the heart, whether the lymph and pus were situated in the cavity of the ventricle, or whether they were in small cells in the muscular texture. But the lymph could every where be raised, so as to show the smooth surface formed by the serous lining of the heart, except in one or two places, where it was doubtful whether there was not a slight abrasion of the membrane; though it seemed, on the whole, more probable that this appearance arose from a firmer adhesion of the lymph, with which a portion of the membrane had been also raised by the handle of the knife.

"In the left ventricle, an exactly similar effusion of lymph was discovered, but in a smaller quantity.

"On making a longitudinal section of one of the pillars of the mitral valve, no distinct muscular appearance could be found, but a yellow substance was seen, in which fibres were only partially evident, between which substance and the serous membrane of the heart a small quantity of blood had recently been effused In the upper part of the left ventricle, near its junction with the auricle, a considerable portion of the muscle was also partially disorganised, but in a smaller degree; the yellow substance being here in granules, mixed with the fibres, and with spots of effused blood; and a branch of the coronary artery could here be seen nearly obliterated by coagulation of the blood within it. A few smaller portions, of a similar appearance, were also seen in other parts of this as well as of the right ventricle.

"The brain was natural in appearance, except in the upper part of the left corpus striatum, which was softened and of a yellow colour, to about half its depth; and the circulation in the internal carotid artery of the same side must have been completely obstructed by a firmly adherent coagulum, which was found within it at the side of the sella turcica. The dura mater was much more opaque than usual."—*Ib.*

Observations upon a case of Chronic Dyspnœa. By M. Andral, fils.—'A young man, twenty-four years of age, having had indolent swellings in the lymphatic ganglia of the neck, presented many symptoms of disease of the heart when he entered the hospital La Charité, in the beginning of March 1826. Face bloated; livid lips, and alæ nasi of a violet hue; œdema of the eyelids; ascites; slight effusion in the lower extremities; respiration short, hurried, entirely executed by the ribs. Horizontal position induced an instant sense of suffocation; and the patient passed his days and nights in a half-sitting posture, upon his bed, the head and trunk being supported by pillows. This difficulty of breathing had come on very gradually, but for more than a year had been exceedingly distressing to the patient, and was always augmented in damp and rainy weather. The chest sounded clearly in every part upon percussion. Auscultation gave no indication of disease, either in the heart or great vessels. A mucous râle was heard in different parts of the chest; in one part a dry, hissing râle—in another the respiratory sound was clear, but intense. For several months the patient had suffered from catarrh; he had never, however, spat blood.—and when we saw him, his expectoration was scanty, and mucus only. The appetite was tolerably good; and he had habitual diarrhœa, but without any pain in the abdomen. The pulse, not at all accelerated, exhibited nothing unusual either as respected its strength or rhythm.

'Nothing proved that disease of the heart existed in this individual; and yet this malady was indicated by many symptoms, as dropsy, orthopnœa, and the appearance of the countenance. This dropsy presented, however, one circumstance which is not commonly met with in diseases of the heart,—effusion had taken place in the lower extremities, consecutively to the abdominal effusion, and was still slight. We know, on the other hand, that in disease of the heart, dropsy commences, in the majority of cases, with œdema round the ancles. Auscultation discovered no cause of the dyspnœa either in the lungs or in the heart.

'The treatment consisted in general and local bleeding; in the application of blisters upon the chest and lower extremities; diuretic tisane, and frictions, with tincture of digitalis, and squills.

'Through the next six months the patient experienced no particular change: the orthopnœa was continual; respiration became exceedingly hurried upon the slightest effort to go from his bed. Examination with the stethoscope gave no farther information. We never observed any fever properly so called. Nothing announced the approaching death of the individual,—when, without any manifest change having supervened, he was suddenly seized on the first of May with an extreme dyspnœa; very soon a tracheal râle ensued; respiration became apoplectic; and after a few hours he died.

'*Examination of the body.*—Nothing remarkable was found either in the brain or spinal medulla.

'In the thorax, the heart had all its usual proportions, and was entirely free from disease,—as also was the pericardium: it contained a small quantity of dark-coloured blood, partly coagulated. All the vessels of the heart were healthy. A small quantity of miliary tubercles were spread through the lungs, which were rather in a congested state, but yet sound, and every where full of air. Some old adhesions united the pleura pulmonalis and costalis on both sides.

'The anterior mediastinum was occupied by a large mass of tuberculous lymphatic ganglia. Through the middle of this mass the two diaphragmatic nerves passed; it was impossible to trace them, from the numerous tubercles that surrounded and pressed on them from every side. They reappeared at a short distance from the diaphragm; and, from the point where they were disengaged from the tubercular mass, to their distribution in the diaphragm, these nerves were remarkable for their gray colour,—similar to what the optic nerve affords distributed to an eye that had long been lost.

'In the abdomen the stomach was sound. Numerous tubercles were spread upon the mucous membrane of the small intestines; some small and superficial ulcerations, to the extent of some inches above the ileocæcal valve; a tubercle, of the size of a hazle nut, in the cortical part of one of the kidneys; cellular adhesions between the diaphragm and liver, the substance of which was healthy; and, lastly, in front of the vertebral column an enormous mass of tubercles, which strongly compressed the vena cava on the one side, and on the other the vena portæ, the principal abdominal branches of which, as well as the trunk, it completely surrounded.

,On each side of the neck, there existed, from the edge of the jaw to the clavicle, a chain of tubercles like those of the thorax and abdomen. Many were interposed between the vessels and nerves of the neck; and the carotid artery and internal jugular vein were separated by these tubercles. As for the pneumo-gastric nerve, it was entirely lost in the middle of the tubercular mass, some inches below the origin of the superior laryngeal nerve. It reappeared a little below the level of the clavicle; and was remarkable on both sides *from being flattened*. It gave origin, as usual, to the recurrent nerves. In the remainder of its course, and especially in those branches which form a great portion of the pulmonary plexus, there was nothing remarkable.

'The cervical portion of the great sympathetic had experienced no manifest alteration either in its structure or position.

'Each axilla was occupied by a tumour of the size of a large orange, consisting of an assemblage of tubercular lymphatic ganglia.

'The thoracic duct, permeable as usual, contained a small quantity of reddish serum.

'This observation appeared to me particularly interesting, from the state in which most of the respiratory nerves were found, and particularly the nerves of the eighth pair. M. Béclard has already related the case of an individual in whom he could find no other lesion to explain a considerable dyspnœa that had existed during life, than a large tumour, developed in the substance of one of the diaphragmatic nerves. (Thesis of M. Descot, upon Affections of the Nerves.) In the present case, not only the two diaphragmatic nerves had undergone a great alteration, which was sufficiently manifest by the gray colour, the true atrophy of their inferior extremity, but the two pneumo-gastric nerves were also seriously involved, as was proved by the impossibility of tracing them through the tumour, and their flattened extremities. Now, if the experiments of physiologists have proved that after the division of the eighth pair of nerves sanguification is not perfectly performed, the lungs become congested, and death supervenes in a few days—is not the fact here reported an additional illustration?—"rapprocher de cet ordre de faits."

'There was equally a gradual diminution; and, lastly, a cessation of the influence exercised by the eighth pair upon the transformation of the venous blood into arterial; hence the regular increase of the dyspnœa, &c. If we will not admit this cause of the difficulty of breathing, we have no other organic lesion which will enable us to account for it; for I cannot think that the few miliary tubercles that were found in the lungs will at all explain the dyspnœa, which was as distressing as that which is met with in the severest diseases of the heart. In whichever way we consider it, whether as connected with the morbid appearances that were discovered, or as independent of every manifest cause, I consider the case as one of sufficient interest to lay before the Society.'—(*Bulletin de l'Athenée.*)

We regard this as a case of extreme interest; and there can, we think, be no doubt of the connexion of the symptoms during life with the morbid appearances discovered after death. The disease was evidently incurable; but by proving that dyspnœa may arise from disease of these nerves, which before we could infer only from experiment (for Béclard's case is almost unknown), it affords farther proof, if proof were wanting, of the correctness of Dr. Philips' views in some species of asthma. It would have added very considerably to the interest of this case had galvanism been tried.—*Lond. Med. Rep. and Rev.*

On the direct application of Galvanism to the Nerves of the Orbit, as a remedy for Amaurosis, by M. Magendie, (*Journal de Physiologie, Avril* 1826.) If Magendie is correct in the opinion he has deduced from his experiments on the fifth cerebral nerve,—that its integrity is necessary to vision,—it follows, that amaurosis may be sometimes owing to a disease in that nerve, as well as to an affection of the optic nerve in other cases. He has therefore conceived it possible, that some kinds of amaurosis may be successfully treated by applying stimuli to those branches of the fifth nerve, which are within the reach of the surgeon, and in the neighbourhood of the orbit. The stimulus which struck him as the best to employ for determining the justice of this idea, was acupuncturation, and galvanism applied through means of the needle. Having first ascertained, by experiment on animals, that needles may be thrust into the substance of nerves without injury, he proceeded to try in the first place the effect of simple acupuncturation. In a young man affected with amaurosis, with insensible pupil, he introduced a steel needle into the frontal nerve where it emerges from the supra-orbitary hole. The patient immediately felt the same sensation as when the cubital nerve is struck at the elbow, namely, a prickling at all the extremities of the nerves. The operation was repeated on the infra-orbitary nerve with the same result. Afterwards he succeeded in puncturing in the same manner the lacrymal twig of the fifth nerve; and immediately the patient experienced a peculiar sensation in the orbit, and the tears flowed profusely. At each puncture of these nerves the iris contracted, but the amaurosis was not diminished. Magendie then proceeded to combine with the puncturation the more powerful stimulus of galvanism, by thrusting one needle into the frontal, and another into the infra-orbitary nerve, and connected one with each end of a voltaic pile of twelve pair of six-inch plates. Each time the electric circle was established, the patient felt a painful commotion in the course of the nerves and in the bottom of the orbit, while at the same time the pupil contracted, and the light became more distinct. This treatment being continued fifteen days, the pupil returned to its original dimensions, and the amaurotic state of the eye was evidently diminished; but Magendie was unable to observe the future progress of the case, as the patient left Paris. Since then he has applied the same treatment to several cases of incomplete amaurosis, and with almost uniform advantage. In one instance of amaurosis of the external half of the retina, accompanied with palsy of the upper eye-lid, and *rectus internus* and *superior* muscles of the eye, a complete cure was effected in three months. He has not hitherto had an opportunity of trying a case of perfect amaurosis. Meanwhile he assures us, that the pricking of the nerves is never followed by the slightest inconvenience, which can form an objection to the experiment; and, therefore, it is highly expedient that this new remedy for so obstinate and unfortunate a malady be subjected to immediate trial by others.—*Edinb. Med. and Surg. Journal.*

On spontaneous Erosion of the Stomach, its Symptoms and Treatment. By Dr. Pitschaft of Carlsruhe.—That species of erosion of the stomach which Mr. John Hunter ascribed to the action of the gastric juice after death, and which the Parisian pathologists believe to be the results of a vital morbid process, has been lately described with minuteness by various physicians as occurring in infants. Among the authors who have written on the subject may be mentioned Jaeger of Stuttgard, Cruveilhier of Paris, and Dr. Gairdner of this city. Dr. Pitschaft has endeavoured to supply a great deficiency in our present knowledge of the disease, by describing the symptoms through means of which it may be recognised during life. It occurs, he says, only among the children of unhealthy mothers, or those who are too soon and too much fed without milk, and whose mind is precociously developed. The first symptoms are paleness of the countenance, coldness of the skin, with occasional flushes of heat, dulness, and flaccidity of the muscles. Loss of appetite succeeds, with excessive thirst, dry shrivelled lips, and dry cracked tongue. At the same time the child vomits all his food, and the alvine discharges become frequent, loose, and consisting of half-digested ailment and slimy matter, like bookbinder's paste with shreds of spinage in it. He is constantly in a state of lethargy, from which, however, he is roused by the slightest touch; and his senses remain active to the last. The countenance, when the disease is fully formed, expresses pain, but not acutely, the mouth has a sorrowful appearance, the look is languishing, the eye half open, the pupil turned upwards during sleep, and the whole physiognomy oddish. He whines frequently, and is so very fretful that if any one looks at him steadily even from a distance, he cries and shifts his posture. The pulse is at first slow and intermitting and does not become quick till near the close; frequently there is a slight cough, and an erysipelatous inflammation of the eye-lids; the respiration is not much affected at first, and becomes laborious towards the end. His belly is rarely much swollen. The urine is very often diminished in quantity.

In cases, which the author supposed from the foregoing symptoms to be of this description of disease, he found the mineral acids useful, but more recently he has resorted to the acetic acid, which he gives in the form of pyroligneous vinegar, with eight parts of syrup, and sixteen of the distilled water of orange-flower. He recommends at the same time that the food consist chiefly of barley-water sweetened with sugar, and that it be given in small quantities at a time. His description of the disease accords very nearly with that given by Dr. Gairdner in the second volume of the Edinburgh Medico-Chirurgical Transactions, but is more minute. We question, however, whether it is, as the author thinks, *pathognomonic.—Ib.*

SURGERY.

Notice of Eight Calculi arrested in their passage through the Urethra, and extracted by means 'd'une pince à gaine'—forceps with a sheath. By M. Legalas.—' The subject of this observation was Captain B. a gentleman of sanguine temperament, strong constitution, and good moral habits. He had retired to his native place, where he lived calm, and free from every inconvenience; when two years since, at the moment of getting into the Diligence, he was seized with a complete retention of urine. He proceeded, however, from Paris to Chartres, which took thirteen hours. At this last place, and after the escape from the urethra of a body which night did not permit him to distinguish, he was enabled to empty his bladder. For a year and a half from this time, he continued to pass his urine in a full stream; but there were always momentary retentions, which determined him to employ habitually a mild regimen, 'régime adoucissant.'

'About last December, M. B. passed a lenticular-formed calculus, of the diameter of six lines, after violent efforts, and a retention of urine, that endured from six o'clock in the morning till eight at night. The urine then flowed copiously, but mingled with a considerable quantity of blood.

'A month after (January), he was again seized with retention of urine, sudden and complete; but this time, in less than five minutes, and with slight effort, a calculus came away, of nearly the same size with the former. This was so fragile, that while trying its consistency it crumbled between his fingers.

'From this time he remained tolerably well for four months; occasionally, however, he noticed slight difficulty in passing his urine,—and sometimes it was mixed with blood, particularly after bodily fatigue.

'In May, after beginning to urinate as usual, he perceived a sudden obstruction, occasioned, to use his own words, 'par l'effet de quelque chose qui se détachait du corps,' by the effect of something that was detached from his body; and he remained without passing any urine for a whole day. But at night, having recognised the presence of a foreign body in the urethra, and having laid hold of it with his fingers, he discovered that he could in this way pass his urine; but he could not entirely remove the opposing body. He continued, however, to pass his urine in this manner, till several calculi had successively arrived in the urethra.

'At length, on the 26th of October, the day on which I saw him for the first time, M. B. counted six calculi; he could no longer pass his urine, till after many attempts to hold the calculi; often lost blood from the urethra; and the slightest error in diet, or fatiguing exercise, occasioned him fresh inconvenience.

'It was impossible to have the least doubt respecting the cause of these symptoms; but we wished to ascertain if the calculi were retained by a band across the urethra, or by a stricture. Examination quickly cleared this point; a silver sound passed without difficulty to the calculi; and we no longer hesitated in our endeavours to extract them.

'A strait forceps, enclosed in a sheath, brought one away very easily; this was the smallest. The second could not be laid hold of with the same forceps; but was easily seized by another curved pair and grooved at upon the side. It was obstructed, however, at the glând, and broke under the instrument, and then came away in fragments. Four other lenticular-formed were drawn out easily, and extracted by the aid of these forceps. Lastly, the seventh, unquestionably the greatest, was readily seized, but passed the gland with difficulty, and not till it had been broken.

'The operation was concluded without any accident, and without any farther inconvenience than a slight gleet. Another calculus was extracted on the 26th of November,—from which time he had remained well till the publication of the paper in July.

'The calculi were analysed by Vauquelin, and were found of uric aid, with a small proportion of potash, with traces of phosphate of magnesia and soda.'—*Lond. Med. Repos. and Rev.*

OBSTETRICS.

Stethoscopic Indications of the Pregnant state.—Among the various useful purposes to which the stethoscope has been applied since the first publication of the invention, one of the most important is its employment to ascertain the pregnant state. The merit of discovering its utility in this way is due to M. Lejumeau de Kergaradec, the friend and "compatriot" of Laennec, who published a small *brochure* on the subject in 1822.* A few additional particulars and some new observations, respecting the indications it furnishes, are given in the recent edition of Laennec,† from which we extract a succinct account to lay before our readers.

The stethoscope, applied to the abdomen, affords two distinct indications, which may be regarded as the most unequivocal signs of pregnancy we possess. The *first* of these is the *action of the fœtal heart.* The *second* is a *simple pulsation accompanied with a rushing noise*, designated as the *noise of the placenta* (bruit placentaire) by M. Kergaradec, because its seat is in the placenta, or in that part of the uterus to which the placenta is attached.

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* Entitled 'Mémoire sur l'Auscultation appliquée a l'Etude de la Grossesse, par M. Lejumeau de Kergaradec. D.M.P.' Paris, 1822. 8vo.

† Tome iii. pp. 457. 466.

(1.) The *Action of the Fœtal Heart* is characterised by *double pulsations*, which are always much more rapid than in the adult subject, being generally twice as frequent as the maternal pulse. These pulsations are distinctly audible from the sixth month of pregnancy, and are sometimes heard a little earlier. Their *situation* is mostly extensive, varying with the position of the child, and being often perceptible in a space a foot long, and three or four inches broad. The precise point whence the pulsations arise, may be always ascertained by the intensity of the noise, which increases or diminishes according as we examine nearer or farther from their seat. It is probable that the space over which the fœtal heart is perceived will be greater, in proportion as the child is placed closer to its membranes, and, consequently, in proportion as the liquor amnios is small in quantity.

The noise sometimes ceases to be audible for hours or even days together. Laennec thinks this may sometimes depend upon the feeble action of the heart, but more frequently is owing to the child having changed its position; so that no part of its trunk touches the membranes, or because a fold of intestine has intervened between the uterus and abdominal parietes.

The action of the fœtal heart is a sign respecting which there can be no uncertainty, nor can it be mistaken for any other; for, although we sometimes hear the heart of the mother, when examining over the epigastrium, sides, or loins, the extreme *difference of frequency*, between the pulsations of the child's heart and those of its parent, prevents the possibility of error in this respect.

The state of the circulation in the fœtus is not affected, or, at least, not constantly affected, by agitation in the maternal circulation, and *vice versa*. Once, whilst M. Kergaradec was examining the pulsations of the fœtal heart, they were suddenly accelerated so much, that it was impossible to count them: the mother was in a perfectly calm state at the time, and her pulse was not at all quickened. In the course of a few seconds the fœtal pulsations resumed their accustomed frequency, which ranged from 120 to 160. It has also happened to Laennec to witness the fœtal heart suddenly acquire extraordinary energy, its *noise* becoming almost as great as the healthy adult heart; but not accompanied by *impulsion*, or any notable change in the *rhythme* or the *frequency* of its strokes. The phenomenon lasted only a few seconds, and the mother experienced no kind of emotion.

(2.) With regard to the second phenomenon, *the noise of the placenta*, Laennec remarks, that it is "evidently an arterial pulsation perfectly isochronous with the pulse of the mother, and accompanied by a rushing noise," resembling the blast of a pair of bellows. There is no sensation of *shock* or impulsion along with this pulsation: it is *heard* only, and it appears to be too deep-seated to be *felt*. The place which it occupies never changes, but it varies in different individuals, and is seldom so large in extent as the space in which the fœtal heart is perceptible. It does not commonly surpass three or four square inches, but sometimes extends over a space exceeding the size of the hand. On one occasion, when visiting the Hôpital de la Maternité, M. M. Laennec, Kergaradec, and Lens, found a subject in whom it was perceptible throughout the whole of the right lateral region of the abdomen (flanc droit) and the right side of the loins.

The *time* when the pulsations of the placenta commonly begin to be heard, is the fourth month. As soon as the fundus of the uterus has risen above the upper brim of the pelvis, so that it can be brought into contact with the abdominal parietes by the pressure of the extremity of the stethoscope, the noise may be heard very distinctly, and sometimes it is even louder than at the full term of pregnancy. At this period, too, its character is peculiar, and different to what it is afterwards. It seems as if a rushing noise, of a somewhat whistling or sibilant nature, *resounded* in an empty bottle; whilst, at a more advanced period of pregnancy, it is almost invariably dull, very diffuse, and gives no sensation of being limited to the calibre of an artery.

This indication, like the action of the fœtal heart, is not continually present; there are some days when it can scarcely be detected; and it often disappears and re-appears during the time that we are making our examination.

That the seat of the phenomenon is in that part of the uterus to which the placenta is attached, has been proved by M. Ollivry, a physician residing at Quimper, who, by introducing his hand immediately after the expulsion of the fœtus, in four cases, found the situation of the placenta to correspond with the place where the noise was audible previous to delivery. The same person has also pointed out another strongly corroborating fact, viz. its disappearance immediately, the moment that the umbilical cord is divided. Laennec does not consider it arises from the placenta itself, but from that branch of the artery by which it is principally supplied. We shall have occasion to examine the facts adduced in support of this opinion in our review of the auscultic indications of the heart.

The noise of the placenta and action of the fœtal heart are commonly found on opposite sides of the body: this, however, is not constantly the case; for sometimes both the phenomena are audible on the same side, and in one instance M. M. Laennec and Kergaradec perceived the heart's action *behind* that of the placenta, the place at which they were examining being the anterior part of the hypogastric region.

In cases of *twins*, Laennec suggests, that there would be *two hearts*; and, perhaps, also, the pulsations of *two distinct placentas*, perceptible in different places. He has known one instance of this kind detected by the stethoscope previous to delivery. He also conceives that it may assist us in determining the *position* of the placenta, and of the fœtus, and, perhaps, throw some light upon extra-uterine pregnancies.

The study of these phenomena requires much greater attention than the indications of thoracic diseases. The noises being very slight and feeble, it is necessary that the apartment be perfectly still. On account of their intermittent nature, we are sometimes obliged to spend a considerable time in our examinations, and to repeat them several times: and it is particularly requisite to be well acquainted with the character of the indications themselves, so as to distinguish them from any others that may be present; particularly from the action of the mother's heart ;—from a dull noise, like the passage of air through thickish fluid, which the peristaltic action of the intestines causes; and, also, from the noise occasioned by the contraction of the observer's own muscles, in consequence of the pressure he is obliged to use in applying the cylinder, in order to keep the uterus and the parietes of the abdomen in apposition.

Remarks. The advantages of these indications over the usual methods of ascertaining the pregnant state must be too obvious to every one to require demonstration. As they depend upon the presence of a fœtus and a placenta, when they have once been heard, no doubt can exist upon the subject. The only material disadvantage attending them, that we perceive, is, that the inverse of this proposition does not hold good, on account of the phenomena not being always present or discoverable; so that their *non-existence* is not equally conclusive of there being *no fœtus*, as their presence is of its existence. Judging, however, from our own investigations, we apprehend that an attentive observer will rarely have to repeat his examinations many times, without finding one or other of them present, in subjects really pregnant; and, therefore, we conceive that he would be warranted in regarding the reverse as extremely probable, if he had repeatedly obtained negative results only.

The *objections* likely to be urged against the adoption of this method that occur to us, are, the indecency of exposing the female abdomen, the difficulty of acquiring a competent knowledge of the phenomena, and the liability of mistaking them. With respect to the first of these it is only necessary to observe, that so long as women can be induced, for the sake of alleviating suffering, or by other reasons, to submit to the examination *per vaginam* usually resorted to, no objection can apply against an examination, so infinitely less repugnant to the feelings, as that by the stethoscope. The difficulty of acquiring the use of the stethoscope, were it not frequently urged, would scarcely merit attention. Every thing has its difficulties, and auscultation has its full proportion; but they are not insurmountable to those who wish to learn, and are willing to bestow sufficient time and attention upon the study. To obtain practical skill in applying the stethoscope is not so difficult an acquisition as to play a musical instrument; and its sounds are much more distinguishable from each other than those of music. Attention, patience, and perseverance, are the three most important qualifications in the candidate for stethoscopic celebrity. The assertion which some individuals have put forth, that in their examinations they have not been able to discover any indications, may be answered by informing them, that *others* have detected them, and found them of great practical utility. Whether their want of success arose from defects in the manufacture of the instrument they employed, neglect of the necessary precautions, an imperfect manner of applying it, want of attention, or personal defects in the auscultative organ, is for them to determine. The student will be in little danger of mistaking the auscultic phenomena of pregnancy, if the characteristic distinctions above-mentioned are carefully attended to. We think Laennec has rather *overrated* the difficulties attending the examination of these indications than otherwise.

We learn from Mr. Jowett, of Nottingham, whose stethoscopic researches we have several times had occasion to refer to in the pages of this Journal, that he has observed the motions of the fœtus to be much more perceptible through the medium of the stethoscope than by the hand alone. *Lond. Medico-Chir. Rev.*

MATERIA MEDICA.

*Experiments and Observations on the Effects of Ergoted Rye upon Man and other Animals, &c.** From these experiments, apparently conducted with every precaution necessary to insure an accurate result, it follows that ergoted rye really exerts a very pernicious influence upon the animal economy. We are the more anxious to call the attention of our readers to this subject, because many authors have denied, and all have misstated, the morbid symptoms produced by this substance. The following experiments, therefore, cannot fail to prove interesting to the profession.

1st *Experiment.*—On the 21st of July, an ounce of spurred rye was infused with 1¼℔. of water; the infusion had a slight tinge of a violet colour, a very disagreeable smell, and an unpleasant insipid taste. Four healthy persons experienced no ill effects from a dose of two coffee-cups full of this infusion.

2d *Experiment.*—On the 20th July, an infusion was made with 2℔. of *boiling* water, and 2 ounces of ergoted rye; this infusion was stronger, of a deeper colour than the first, and had a still more unpleasant smell and taste. At 9 o'clock in the morning, six persons took each three cupsful of this infusion. After the expiration of two hours, three complained of a feeling of heat in the abdomen, and more particularly in the epigastrium, together with a general sensation of uneasiness, considerable nausea, and inclination to vomit. These symptoms subsided before noon, at which time these three gentlemen sat down to dinner with a good appetite. The other three did not experience any annoyance, except a feeling of warmth, and excitation in the region of the stomach.

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* Versuche und Beobachtungen uber die Würkung des Mutterkornes auf den menschlichen und thiereschen Körper, &c. &c. Dr. C. J. Lorinser. Berlin. 1824.

3d *Experiment.*—As the very disagreeable smell and taste of the infusion had excited a feeling of disgust, it was determined to use the ergoted rye in substance. On the 4th of August, five persons took each 2 drachms of the latter, spread on three slices of bread and butter. These five, whom we shall call A, B, C, D, and E, wrote down the following account of what they experienced: *A*, in the course of one hour, felt a slight sensation of pain in the epigastrium, together with symptoms of determination to the head, such as vertigo, increased warmth, and redness of the face, &c. In a short time after this he had a natural stool. At half past 11,* he was annoyed by a considerable dryness of the throat and mouth, periodical pains in the belly, and repeated eructations of an unpleasant taste. At noon, slight nausea, increased flow of saliva, some inclination to vomit, and fetid flatus. In half an hour more, the tormina and borborygmi increased, the nausea continued, and the head became more engaged. At 1 o'clock, repeated thin stools, voided with some tenesmus. At 2 o'clock, when he dined, all these symptoms had disappeared, leaving no other inconvenience but a great thirst, and occasional griping. *B* experienced in half an hour after the dose, a feeling of increased warmth in the epigastrium, and dryness of the mouth. This was soon succeeded by an increase of saliva, repeated eructations, and slight nausea; these symptoms increased until about 11 o'clock, when he felt inclined to vomit. He sought relief by walking about in the open air, but in vain, and soon after vomited, together with other matters, a portion of the bread. At half past 11, he vomited the remaining portion; and in ten minutes after he vomited a third time, with much retching. As his stomach was previously emptied, the third fit of vomiting only discharged mucus. The sickness now decreased, but some nausea, and an increased flow of saliva continued the whole day, during which he felt no desire for food. and in the evening still complained of weakness. In *C*'s case, the nausea, increased flow of saliva, tormina, and headach, commenced in one hour after the *dose*. He felt himself so sick in the stomach, that he could procure no relief, either by an horizontal position, or by walking about in the open air. The nausea and headach, together with violent pain in the abdomen, continued until 2 o'clock, when he dined, but of course without feeling any relish for his food. After dinner, however, he found himself somewhat better, and a few loose stools about eight in the evening were followed by complete relief. *D* said, that in half an hour after swallowing the ergoted rye, he felt a sensation in his stomach, as if he had not eaten any thing for several days. This sensation soon rose to actual hunger, so that at 11 o'clock he felt himself obliged to eat his dinner, which he did with a good appetite. In a quarter of an hour after dinner, he felt himself sick in the stomach; experienced an increased flow of saliva, and considerable pain in the belly; and in a short time he vomited what he had eaten. The vomiting soon recurred, and the nausea and tormina continued until 5 P. M. when he had a rigor of several minutes duration, followed by a moderate sweat, after which the pain ceased, and he no longer found himself unwell. *E* felt an increased warmth in the epigastrium at 10 o'clock, and griping pains, his pulse too was hurried, and his face warm and red; at half past 10, he experienced a disagreeable sensation in the head, soon followed by a headach, and a sensation of dryness and burning heat in his mouth and throat. The latter were, in the course of half an hour, succeeded by an increased secretion of saliva and mucus, which made it necessary for him to spit constantly. This was accompanied by severe pains in the epigastrium and nausea, which, at 11, was very distressing. The tormina became now so painful that he could no longer hold himself erect, and, even when in bed, he was obliged to lie with his body bent towards his legs. Although the nausea increased, yet he could not vomit even with the assistance of tickling the fauces, so that from 11 to 12 o'clock, his situation was truly pitiable; towards one, some thin and fetid stools, preceded by borborygmi and flatus, were procured.

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* We suppose this experiment, like the preceding one, began at 9 o'clock.

These experiments fully establish the pernicious effects of ergoted rye, and others made by the same gentlemen prove that it loses its pernicious qualities when *thoroughly roasted*, for they experienced no bad effects from doses of two drachms of the dried (gedörrten) powder. It was likewise proved that the activity of this substance is not impaired by keeping for two years. A number of experiments were likewise made on men and animals with bread made of ergoted rye, and its bad effects were precisely similar to those already detailed. Fresh bread, still moist and warm, seems its most active vehicle.—*Edinb. Med. and Surg. Journal.*

MEDICAL JURISPRUDENCE.

On the Establishment of the Respiration in the New-born Child.[*]—In a paper inserted in the Mémoires de l'Académie des Sciences, for 1769, Portal advanced an opinion that the right lung, in the new-born infant, respires before the left. He also adduced some facts to show that the inflation of the latter does not take place until some time after birth.[†]

In Paris and Fonblanque's Medical Jurisprudence these opinions of Portal's are regarded as established facts; and further, we find a statement that a physician to a foundling hospital on the continent, who had been daily accustomed to examine the bodies of the infants which died soon after birth, had generally found only one or two square inches of pulmonary structure, crepitous or permeable to air: from which fact it is inferred that the complete inflation of the lungs does not take place immediately after birth; but that the respiration is established in a *gradual* manner.

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[*] Mr. Jowett in a letter to the Editor.

[†] The paper in question is reprinted in Portal's Collection, entitled, "Mémoires sur la Nature et le Traitement de plusieurs Maladies." Tome Ier. pp. 29-43. (Paris, 1808, 8vo.)

Soon after I had commenced the use of the stethoscope, it occurred to me that the correctness or incorrectness of these facts might be satisfactorily determined by examining the respiration immediately after birth by means of the cylinder. I accordingly made the experiment, and the result of repeated examinations has uniformly been, that *vesicular respiration* (or the respiratory murmur occasioned by entrance of air into, and its expulsion from, the air-cells) is audible *throughout both the lungs*, as soon as the child has made its first inspiratory efforts.

This experiment proves that the function of respiration is completely established immediately after birth; and therefore controverts Portal's ingenious hypotheses, and the opinions drawn from the appearances the lungs present after death.

I am not disposed to question the correctness of the statement, that there is seldom more than a small part of the lungs found to be crepitous or pervious to air, as it accords with my own observations in most of the opportunities I have had of making such investigations. But it appears to me, that, in the new-born infant, as in the adult, a considerable extent of pulmonary structure that has once been inflated in the act of respiration, may again be rendered impervious to air, by disease or by changes which take place in the dying moments: and, for want of attending to these circumstances, I think an error has been committed, in regarding the noncrepitous portions of lungs (that have evidently respired) as not having been inflated. We frequently observe inflammatory engorgement, hepatization, tuberculous infiltration, œdema, sanguineous engorgement caused by obstruction in the circulation, &c. rendering a great portion of the lungs so dense as to sink in water; and some reasons incline me to regard the last of these states as a common cause of the appearances observed in new-born children.—*Lond. Medico-Chir. Rev.*

*Important Toxicological Experiments.**—The word antidote was formerly employed to designate the substances supposed to possess the property of counteracting in the animal economy the deleterious effects of certain poisons; but, of late years, toxicologists not finding any of these precious medicines stand the test of experiment, have restrained the acceptation of the word, and applied it only to such chemical agents as are capable of rapidly decomposing or combining with the poison, and of transforming it thus into a new compound, the action of which is no longer dangerous. By substances, possessing these qualities, it is impossible to act upon the poison that has already been absorbed, or to diminish the effects it may already have produced on the digestive canal, &c. but one may hope to render innocuous that portion of the deleterious substance still remaining in the stomach, and to preserve life by putting a stop to the action of the poison before it has continued long enough to produce fatal effects.

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* On the use of iron as an antidote for most of the poisons belonging to the class of metallic salts. By Dr. H. Milne Edwards and Mr. J. Dumas, Professors of Chemistry.

It is in this manner that, according to Messrs. Dumas and Milne Edwards, the new method of treatment communicated to the Philomatic Society of Paris, by those gentlemen, on the 19th of August, may be productive of the most beneficial effects in numerous cases of poison. It is founded on the known innocuity of metallic copper, mercury, lead, &c. many of the compounds of which are most deadly poisons; and, on the property which iron possesses of decomposing the salts of these metals, and of reducing their bases. Thus, when a piece of iron is placed in a solution of acetate of copper, for example, the salt is quickly decomposed, and copper in a metallic state deposited on the surface of the iron.

As yet the efficacy of this substance has only been tried by Messrs. Dumas and Milne Edwards in cases of poison by verdigris, carbonate of copper, acetate of copper, sulphate of copper, and corrosive sublimate, but it is probable that it will be found equally useful in many other cases. All toxicologists agree that 12 or 15 grains of acetate of copper always destroy a dog in the space of a few hours, provided the œsophagus be secured so as to prevent the poison from being rejected. In the experiments of Messrs. Dumas and Milne Edwards, from 15 to 50 grains of that compound were administered in the same manner, and about an ounce of iron filings injected into the stomach before or immediately after the symptoms denoting the deleterious action of the poison had begun. The œsophagus was then tied as in the former cases, but the animals instead of expiring in the space of three or four hours were, in general, by that time, pretty well recovered from the effects of the poison, and survived 5, 6, 8 days or longer; so that their death was evidently occasioned only by the ligature of the œsophagus. In one experiment the ligature was taken off the day after the poison had been given, and the wound closing sufficiently to permit deglutition, the animal recovered perfectly, and 16 days after was made use of for another experiment. After the administration of verdigris, carbonate, and sulphate of copper, the use of iron filings was equally successful; but, with the last of these salts, it was found that the addition of a small quantity of vinegar rendered the action of the antidote much more certain. The same substance administered in the way we have just mentioned, equally hindered corrosive sublimate given at the dose of 12, 15, or 18 grains, from producing death, as is constantly the case when given alone.

The experiments of Messrs. Milne Edwards and Dumas, not being as yet published, we have not been able to lay before our readers all the details necessary to enable them to judge of the practical use of this new method of treatment in cases which unfortunately so often baffle the skill of the physician; but the importance of the subject induced us to insert the above communication, and as soon as it is in our power, we will return to the subject and examine it with all the attention it deserves.—*Ib.*

Personal Identity.—The following case is alluded to by *Fodere, Medécine Legale*, vol. i. p. 28. and quoted from him in *Paris and Fonblanque's Medical Jurisprudence*, vol. iii. p. 144. We are indebted for a minute detail of the circumstances to the *Causes Celēbres, par Mejan*, vol. iv. p. 329.

On the 14th of May, 1808, at 10 P. M. the Sieur Labbe, Mayor of the Commune of Foulanges and Department of Calvados, in passing on horseback along the highway with the widow Beaujeau, his servant, on foot, was fired at with a gun from behind a ditch and through a hedge. He was wounded in the hands. It was an hour and forty-three minutes before the rising of the moon, and the night was dark, yet both Labbe and his servant swore, that they recognised the assassins by the light of the discharge. One of the persons accused was arrested, tried, and condemned to death; but an appeal was taken to the Court of Cassation. The advocate consulted M. Lefeore Gineau, member of the Institute and professor of experimental physics in the Imperial College of France, *whether it was possible that the priming* (amorce) *in inflaming could produce light sufficient to discover the face of the person firing?* Gineau, with his son, and Dupius and Cuassin also professors, Messier a member of the Institute, and several others, retired on the 8th of December at 8 P. M. into a dark room, and there Professor G. fired several primings, the spectators being stationed at different distances, in order to witness the effect. The light produced was strong, but fuliginous and so rapidly extinguished, that it was impossible to distinguish the individual firing. "A peine etait-il possible d'entrevoir la forme distincte d'une tête. On ne reconnaisait pas celle du visage." They then descended into the court-yard of the College, loaded the gun with powder, but the results, on discharging, were the same.

The condemned was discharged.

Domestic.

Nyctalopia. Extract of a letter from T. R. Burden, M. D. to B. Delevan, M. D. Surgeon in the United States Army.—Nyctalopia, a disease common to seamen and soldiers in the East and West Indies, and indeed to the natives and visiters of tropical climates, has been known in all ages. In this country it has been supposed to be very rare. I do not recollect having met with any description of it as occurring in the practice of American surgeons, and believe it is generally unknown to the profession in the United States. I am disposed, however, to think that it is not uncommon in the southern sections of the Union; attended with no pain in most instances, and never interfering with the daily occupation of its subjects, persons are not induced to seek surgical aid, and perhaps are sometimes deterred from the dread of an operation which the ignorant think inseparable from the treatment of diseases of the eye.

Whilst attached to the command of Col. Brooke, of the 4th United States Infantry, at Tampa Bay, in East Florida, I met with several cases of nyctalopia. They were the first I had seen; and as is usual with army surgeons at out-posts, I had no surgical works to refer to, and had to depend on my own resources to ascertain the nature and mode of treatment of this imperfect form of amaurosis. The soldiers affected had been stationed at fort Barrancas, on the western shores of Pensacola Bay, where they were exposed to the reflection of the sun from the white sand which surrounds that fortress.

During the voyage from Pensacola to Tampa, they had all been affected with sea sickness, the inseparable attendant of a storm, without experiencing any change in the diseased vision. They did not apply to me for relief until the troops had encamped, and were engaged in building the cantonment. The appearance of the disease was as follows:—During the day the sight continued unimpaired, but on the approach of night a mist appeared before the eyes, which gradually increased until the patient was totally deprived of sight. He was not sensible of the light of a candle, and that from the bright fires before the tents had no effect on vision.—In the morning sight was gradually restored, and he was able to see the most minute objects distinctly, and as well as those who were free from disease. During the day there was no alteration in the natural appearance of the eye; at night the pupil was dilated and motionless. I could not ascertain any intermittent or periodical character in the disease. One soldier was in the hospital with dysentery, which had no effects on the nyctalopia, neither did I perceive that intoxication produced any aggravation of symptoms. The first case I suspected was simulated, as soldiers frequently resort to expedients to escape guard duty, and prefer such diseases as are least likely to be detected by the surgeon. My experience as physician of the Philadelphia prison, had made me acquainted with the mysteries of this class of imposters, and the proper mode of treatment to be adopted with this kind of patients, and suspicion led me in this case to the knowledge of a remedy which has rendered nyctalopia manageable in my hands.

The second was a case in which there could be no motive to deceive, for the man was employed as company clerk, and had no guard duty to perform; he continued at the writing-table of his own accord during the day, but was unable after night to walkout of his tent without a conductor. He experienced no inconvenience from his occupation.

I had six cases of this disease in the month of March, all of which were cured. I left the post in July, at which time there had been no relapses. Viewing nyctalopia as a debilitated state of the optic nerve, produced by the reflection of the sun's rays from a sandy shore, and by a damp situation, I did not recur to general and depleting remedies. The incessant vomiting at sea had made no change, and the dysentery, in one case, had no effect on the diseased state of the eye. No alteration in diet was directed, as in army practice; I am convinced that in general, it is, to say the least, unnecessary. I treated it as a local disease; adhesive plaster spread on leather the size of the hand, and sprinkled with tartar-emetic, was applied to the back of the neck, the part having been previously bathed with warm vinegar. The second application always removed the disease, and restored the patient to perfect vision.

I have since tried this application in various diseases of the eyes, and having been satisfied with the results, I give it a decided preference to the use of blisters, or even setons.

In mania-a-potu, when the tartrite of antimony is used, it seems to produce effects not altogether attributable to its emetic property.—Whether externally it possesses any other than an irritating power, I am not prepared to say, it has been, however, so successful in my hands, in the imperfect forms of amaurosis, that I hope you will give it a trial.—*Am. Med. Rev. and Journal.*

A Case in which a Scirrhous Enlargement of the whole of the Parotid Gland was successfully extirpated. By George M'Clellan, M.D.—During the past winter, Mr. now Dr. John Graham, a well educated and very intelligent young surgeon from Dublin, attended the lectures of the medical faculty of Jefferson College, for the purpose of becoming a candidate for the degree of doctor of medicine in that institution. As his left eye, and indeed the whole of the left side of his face, was evidently distorted, and as he wore his shirt-collar uncommonly high, I always suspected the existence of some disease, which impaired the functions of the facial nerve of that side. But I was not aware of the nature of the irritating cause, until at the end of the session, he applied to me for the purpose of getting my advice in regard to the treatment of an enormous tumour in the situation of the left parotid gland.

On examining the diseased part, I was immediately struck with the appearance of a large and irregular cicatrix over the most prominent surface. On inquiring into the cause of this circumstance, I was informed that it proceeded from an ineffectual attempt previously made by an eminent surgeon of Dublin, to extirpate the tumour. The operator himself, and several other respectable surgeons and physicians, who were present at the operation, at that time, as Mr. Graham assured me, were very positive in the opinion that the disease was an enlargement of the whole parotid gland. All the other surgeons who had, after that period, examined the case, joined, as far as his recollection served, in the same opinion. The appearance of the tumour itself, and the symptoms which attended it at the time when I first saw it, also tended strongly to corroborate that conclusion. It must be supposed, therefore, that I was exceedingly cautious in giving any advice in favour of a repetition of the attempt to extirpate the tumour. But the patient himself, and he was by no means unfit to form a judicious opinion, was very anxious to have me make one effort to relieve him. The diseased part had also become exceedingly painful; and his left eye-lids were permanently prevented from closing, in consequence of which the eye-ball was constantly affected with a very troublesome chronic inflammation. I had, moreover, long been prepossessed with an idea that the conglomerate glands are rarely, if ever, totally diseased; and that surgeons had often mistaken enlargements of the conglobate glands of the cheek for diseases of the subjacent parotids, in which they may become imbedded in consequence of pressure and absorption.

Reflecting on all these circumstances, and indulging a faint hope that the operation would not prove so formidable as I had at first anticipated, at the same time that I was strongly incited by the solicitations of my unhappy patient, I finally determined to make at least an attempt to extract the tumour.

On the 27th of February, therefore, in presence of my friend professor Smith, and several of my pupils, I performed the operation in the following manner: Two curvilinear incisions were first made, from a little above the zygoma downwards, to meet about two and a-half inches below the angle of the jaw, in such a manner that nearly the whole of the old cicatrix was included between them. After having reflected the integuments from the surface of the tumour, I next dissected down to the zygoma and masseter muscle before, and to the cartilaginous tube of the ear, and mastoid process behind. As no impression had then been made upon the body of the tumour, and as I could dissect no farther in either of those directions, I immediately proceeded to burrow under the lower extremity of the mass. In endeavouring to accomplish that step in the operation, I was necessarily obliged to divide the posterior belly of the digastricus muscle; after which my fingers were at once admitted under the whole body of the tumour, and I was enabled to make effectual attempts to wrench it from its bed. Before I proceeded farther, however, I insulated the continued trunk of the external carotid, just as it was entering the tumour, together with the descending veins, which accompanied it; and, instead of cutting them across in the usual manner, I tore them out from the body of the tumour, with a thumb and finger. My face and eyes were instantly deluged with a gush of blood; but before I could recover myself sufficiently to cast a ligature around the vessels, which I still commanded with my fingers, the hæmorrhage altogether ceased, in consequence, no doubt, of the retraction and contraction of the lacerated extremity of the artery. I was then enabled to proceed with full deliberation; and, after powerful and repeated efforts at wrenching, aided by an occasional use of the knife to divide the strong bands of condensed cellular substance, and some of the fibres of the styloid muscles which adhered to the tumour, I finally succeeded in elevating the whole mass above the ramus of the jaw, and mastoid process. The trunk of the *portio dura*, very much enlarged in consequence of the previous irritation, was then seen emerging from under the mastoid process, and mounting over the posterior margin of the tumour to enter its substance near the anterior surface. The unnatural state of tension in which this exquisitely sensible nerve was then placed, produced such an agonizing degree of pain, that the sufferer was thrown into convulsions and syncope. I made all haste to divide the nerve,* therefore, and the patient was soon restored to his natural state of sensibility and apprehension. To complete the operation, I had then nothing more to do than to separate the upper portion of the tumour from the zygoma, which I was compelled to effect by the scalpel, inasmuch as the layers of fascia were too strong to be lacerated. In this last step of the operation, the main trunk of the temporal artery was necessarily cut, in consequence of which a profuse hemorrhage took place from the recurrent circulation. I was, therefore, obliged to apply a ligature, which was the only one employed during the whole operation. What became of the internal maxillary artery, I could not discover, although there can be no doubt that it was torn asunder in the act of wrenching the deep-seated portion of the tumour from behind the angle and ramus of the jaw.

In consequence of the faint, and almost exhausted state in which the patient remained for some time after the operation, there was much less oozing of blood from the exposed surfaces than could have been anticipated. Our view of the parts composing the parietes of the wound, therefore, was not at all obstructed; and the anatomy of the whole could be almost as clearly pointed out, as in the dissected subject. The cavity of the wound was certainly the deepest and most frightful that I have ever seen in the living body. It appeared much larger at the bottom than on the surface, and its depth was full four and a-half inches from the skin to the walls of the pharynx, which was largely exposed at the bottom of the wound.

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* As soon as this was done, the cells of the conjunctiva were instantaneously injected with extravasated blood.

The styloid process, entirely bared, and even divested of a large proportion of its muscular fibres which had been torn away with the tumour, projected into the back and lower part of the wound. The internal carotid and jugular vein, together with the hypoglossal nerve, which were barely covered with some loose cellular tissue, formed the posterior parietes of the deep and expanded part of the cavity that was situated within the ramus of the jaw before, and the mastoid process behind. With a finger, introduced behind the ramus and angle of the jaw, could be felt the two pterygoidei muscles, which were completely exposed and projected into the cavity in that situation. In fact the tumour appeared to have projected into, and to have filled up every space into which the parotid itself could possibly have insinuated; and no vestige of any portion of that gland, either sound or morbid, could be discovered in any part of the exposed cavity.

As I was anxious to avoid, if possible, the use of ligatures around the lacerated extremities of the arteries which had been torn across during the operation, I waited some time to ascertain whether there would be any danger of hæmorrhage. As nothing more took place, however, than a slow oozing of blood, which gradually coagulated, and filled up the cavity of the wound, I did not hesitate in depending on the external dressings alone. To prevent the edges from being reflected inwards, I first applied three interrupted sutures; after which some adhesive strips and a compress of lint were fastened on by a head-bandage.

For the first three days after this operation, the situation of my patient was truly alarming. The powers of his nervous system appeared to have been greatly shattered; and, notwithstanding the free use of opiates, the symptoms of constitutional irritation ran very high. The secretion of urine was almost entirely suppressed; and when, on the second day, the first few drops began to be discharged through his urethra, a severe and excruciating strangury came on. Spasmodic contractions, also, frequently took place in the muscles of the extremities; and a most distressing pervigilium, which no plan of treatment could, for all that length of time, counteract, rendered the prospect of his recovery still more uncertain.

But the most alarming of all his symptoms was the fact that, in the course of a few hours after the operation, he found it impossible to convey any thing into the œsophagus. Whether this difficulty proceeded from mere nervous irritation, or, as I supposed, from a collapse of the parietes of the pharynx in consequence of its exposure, and the laceration of the stylo-pharyngeus muscle; or whether it was caused, as the patient himself imagined, by the pressure of the large coagulum, which was confined in the wound, upon the internal and membranous walls of the same cavity, it was not easy to decide. But it was certain, that not the smallest particle of any substance could, for the space of two days, be swallowed; and when an attempt to drink any fluid was made, universal convulsions, precisely like those which occur in hydrophobia, immediately supervened.

By the use of opiate injections, however, and the application of warm stupes around the pelvis and abdomen, the distressing symptoms of strangury, and the spasmodic twitches of the muscles, first began to disappear. Soon afterwards, as I was preparing to inject some fluids down his œsophagus by means of a stomach tube, the patient made a successful attempt at deglutition, which gradually became more easy, and, of course, less complicated with the convulsive actions. The young gentlemen who were in attendance, attributed this to the effects of a copious secondary hemorrhage which had, a short time previously, taken place from the wound in consequence of a severe spasm of the muscles about the throat.

Suppuration was very slow in taking place from the wound; but finally, after the use of a decoction of bark, and the application of large fermenting poultices, it became established and dissolved away the enormous coagulum. Before the cavity, which almost became converted into an abscess, could be evacuated, however, I was obliged to re-open the wound with the point of a bistoury. Granulations then speedily sprouted up, and completed the recovery of my fortunate patient.

The cicatrix, which has become very firm, is sunk into a deep hollow behind the angle of the jaw. But the countenance is by no means so much deformed as it was before the operation, especially as the part can now be easily covered from the observation of a by-stander. The paralysis of the muscles, and the distorted appearance of the eye are, moreover, greatly improved; and the situation of the patient, as regards the use of his jaw, and the power of moving his head, has become incomparably better.—*Ib.*

Trial for Nuisance at the New-York Court of Sessions.—The Court of Sessions have been occupied for the last two days in a very interesting trial. It was on an indictment against the New-York Chemical Manufactory, charging their works at Greenwich with being a public nuisance. The evidence was long, and we shall confine ourselves to a recapitulation of the testimony, showing the leading facts on each side. It appeared from the testimony of Dr. John Leet, the prosecutor, that his dwelling-house is within 60 feet of the chamber of the factory; that two or three times a day at the opening of the chambers, he has been extremely annoyed by the effluvia proceeding from the factory; that it excited coughing and difficulty of breathing, and affected one of his children so as to cause bleeding at the nose; that he was obliged to remove his horses from the stable in consequence of it, and that it had completely destroyed his garden and vegetation, and withered the leaves on the trees. On his cross-examination, he stated, that he followed horse-doctoring, and had the largest *horse infirmary* on the island; that he was originally employed as the agent of the company for the purchase of the land on which the factory stood, and had received compensation therefor. The Doctor was also hard pressed by the counsel with regard to the manner which he disposed of his *dead patients*, but denied that any bad effects proceeded from them. In his own language "there was not a sweeter place on the island," were it not for the chemical works. There was also some evidence about conflicting interests in land between the Doctor and the Company—the Doctor wishing them to purchase his land, and demanding 4500 dollars therefor, but refusing to tell what it cost him further than that he had only a lease of it for thirty-six years *rent free*.

Jos. Chamberlain now testified, that he lived about fifty rods from the factory, in an opposite direction from the Doctor; that he occasionally, when the wind blew in his direction, felt some inconvenience from the gas, that it excited coughing, and difficulty of respiration, and affected the vegetation, killing the cucumbers, squashes, &c. and turning the leaves on the pear-tree black.

Cross-examined. Mr. Chamberlain said, he had not experienced any inconvenience from the Doctor's infirmary, although he has from his *dead patients;* that it is not a thickly settled place around the factory; that he himself has a rum distillery there, and there is a glue factory a little above, besides the Doctor's hospital.

Messrs. John Boyd, Samuel L. Cray, Stephen C. Roe, and Dr. Moore, testified, that they had been at Leet's, and felt the effects of the gas; but that it was a temporary inconvenience, and no permanent injury resulted from it. The last witness further stated, that he had had a conversation with Morrison about it, and he had agreed to submit to three impartial men what was the value of Leet's property and his damage, and pay him for it, to which Leet objected, saying three *impartial* men would not undertake it. The prosecution here rested, and Mr. Anthon submitted to the court, whether, under the evidence produced, they should enter into their defence. He then entered into an explanation of the law relative to nuisances and the distinction laid down by writers between public and private nuisances. This he contended was a private nuisance, and that Dr. Leet must have recourse to his civil remedy, that a criminal prosecution would only lie where the injury was general, and such as to affect the whole neighbourhood; that in cases where the injury was confined to a few, a civil remedy must be resorted to, and this for obvious reasons, inasmuch as a company might be ruined merely for the purpose of pleasing one or two individuals. On the contrary, where the injury was general, a public prosecution would alone lie, as were it otherwise, a multiplicity of suits might be commenced against the company, and it would be equally injurious to the company. Here he said every precaution had been taken by the Company; they had located their factory in the most convenient spot they could select, in the suburbs of the city, in a marshy spot of ground and where there were few inhabitants. Mr. Anthon cited the case of the King *v.* Morris, Blackstone's definition of public nuisance, and the case of the three Lawyers in Clifford's Inn against a Tinman, who had located himself in their neighbourhood, and by his noise prevented their paying that attention the cases of their clients required, in which Mr. Anthon observed, although the court if in any case were disposed to consult the wishes of the complainants, it was decided not to be a public nuisance, and that the parties must have recourse to their private remedy. After some little discussion, in which it was intimated by the Court that they considered the law, as laid down by Mr. Anthon, as correct, on a suggestion by Mr. Ogden that they had more evidence to produce, the defence commenced.

Dr. Dana was then called by the defendants, and testified to the various branches of the arts in which vitriolic acid is employed, viz.—in the manufacture of leather, hats, in bleeching, and dying, in the manufacture of artificial soda water, blue vitriol, green vitriol, aqua fortis, muriatic acid, &c. He further stated, that there were similar establishments in large towns, one in Boston, and two in Birmingham.

Dr. Mitchill was next called to the same effect. The Doctor ascended the stand, and being questioned as to the properties of sulphuric acid, commenced as follows:—the productions, of which sulphur is the basis, are very numerous and very various in their operations. In the case now before the Court and jury, sulphur is exhibited in the form of sulphurous acid vapour. Of the properties of this vapour and its deleterious effects in a confined atmosphere, we have abundant proofs. Farmers in the country are well aware of this, and we find them when about to destroy bees to obtain the honey, placing burning sulphur under the hive. Every sailor who understands his business is also aware of its efficacy of clearing the ship of rats. Notwithstanding traps and cats are on board, these vermin will abound, and we then find the sailor closing up his hold and filling it with burning sulphur, by which means these noxious animals were destroyed. Further, we read in holy writ that Sodom and Gomorrah were destroyed by fire and brimstone rained down from heaven; and on my late visit to the factory, I was cautioned against going too near the chambers. Some one of the company remarked, that it was of no consequence, that we might as well accustom ourselves to it at present, and it would come easier hereafter, as you know it is stated the wicked are to go to some such place. The Doctor then entered into an explanation of various acids, and the combinations of iron and copper, by which blue vitriol and green vitriol were produced from sulphuric acid. It was evident, he said, that a man might be smoked to death in a smoke-house. It was a matter of prudence to avoid a smoky room, he, himself, would not live in a smoky room, but would get out of it as quick as possible. The Doctor identified the sulphur seen at the factory, as sulphur from Mount Ætna, referred to a tract of Doctor M'Bride, of Dublin, spoke of his landing when a boy in France, and a chemical manufactory he visited near the mouth of the Bay of Biscay, descanted on the increased duties of the new tariff, remarked on the case of Deel's Glue Factory, in Spring-street, where the neighbours had built around and had then indicted him and broken up his establishment; also, that of the New-York Hospital, against which he said there was a foul conspiracy, to cause its removal, but that they would find it a mountain to move—praised the dinner lately given by the Company, and concluded the whole by stating that there was nothing in sulphurous acid as capable of producing either an endemic or epidemic disease, but was perfectly harmless in a free atmosphere.

Mr. Southwade was then called. He testified, that he was the superintendant of the works; that he lives within 150 feet of the chambers, and has a family of seven persons, who all enjoy uninterrupted health; that they have from 40 to 70 men employed in the factory, all of whom, without a solitary exception, enjoy good health; that his garden adjoins Leet's, and though at the first of the season his vegetables suffered some during the drought, he raised a fine crop of cabbages, potatoes, and turnips; that at times he feels the gas in his house, and it excites a little coughing, but that it passes off immediately; that he has a school of children in his house, who run all over the factory, and he never heard of their being affected with bleeding at the nose.

There was a great deal more testimony to the same effect as the preceding given on both sides. Of the number of witnesses, however, for the prosecution it appeared, that but four lived in the neighbourhood of the factory. Dr. Pascalis and others testified to its not being insalubrious, and the cause was submitted without argument to the jury, under the charge of the Court, which was, in effect, that though this might be a nuisance, as it undoubtedly was to Mr. Leet, it was not sufficiently general to become a public nuisance, and the parties must have recourse to their private remedy. The jury accordingly returned a verdict of *not guilty.*

Counsel for the prosecution, H. Maxwell, District Attorney, and T. L. Ogden; for the Company, W. A. Seely and Anthon.—*N. Y. Even. Post, Jan.* 10.

QUARTERLY BIBLIOGRAPHICAL NOTICES.

1. *A Dissertation on the Remote and Proximate Causes of Phthisis Pulmonalis; to which the prize was adjudged for the year* 1825, *by the New-York State Medical Society.* By Andrew Hamersley, M.D. &c. With Notes, Critical and Explanatory. Second edition, revised and corrected. 12mo. pp. 99. New-York, 1827.

The reason assigned for the publication of this edition is thus expressed by the author in his preface:—"The ensuing pages, after but a short interval from the period of their first publication, and under the following circumstances, are again submitted to the medical public. Originally published in one of the medical journals of this country, while a wide circulation was in many respects given to them; others, not having access to such periodical, were thus unable to peruse them. To supply such deficiency, of which the writer has had sufficiently gratifying intimation, more especially from the members of the State Medical Society, a large number of whom remain unfurnished with a copy, the present edition has been undertaken. To enhance whatever merit the work may possess, it has been carefully revised, both as regards its composition, and the opinions it conveys."

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2. *A Review of the Diseases of Dutchess County, from* 1809 *to* 1825; *being the subject of two Addresses, read before the Medical Society, at their annual meetings in* 1819 *and* 1825. *Also, an Essay on a Disease of the Jaw-bones. To which is added, an Appendix, containing Notes and Elucidations.* By Hunting Sherrill, late President of the Dutchess County Medical Society. 8vo. pp. 184. New-York, 1826.

☞ See Review.

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3. *Treatise on the Theory and Practice of Physic.* By George Gregory, M.D. *With Notes and Additions, adapted to the Practice of the United States.* By Nathaniel Potter, M.D. Professor of the Practice of Physic in the University of Maryland, and S. Colhoun, M.D. 2 vols. 8vo. Philadelphia, 1826.

The Treatise of Dr. Gregory is an admirable work, and we are much pleased to see it re-printed in this country. It will, in a very short time, wholly supersede the unscientific and crude work of Dr. Thomas, which has so long been forced upon us. The American Editors, besides adding copious notes, have very largely interpolated the text of the author. This is a liberty which no editor, in our opinion, has a right to take; and we hope, that in the next edition all the additions will be thrown into the form of notes.

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4. *An Inquiry concerning that Disturbed State of the Vital Functions usually denominated Constitutional Irritation.* By Benjamin Travers, F.R.S. Senior Surgeon to St. Thomas's Hospital, President of the Hunterian Society of London, &c. &c. 8vo. Re-printed New-York, 1826.

5. *The Quebec Medical Journal.* Conducted by X. Tessier. No. 4. In Exchange.

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6. *A Treatise on the Diseases of Females.* By Wm. P. Dewees, M.D. adjunct Professor of Midwifery in the University of Pennsylvania. pp. 557. Philadelphia, 1826.

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7. *American Modern Practice: or a Simple Method of Prevention and Cure of Diseases, according to the latest improvements and discoveries, comprising a Practical System adapted to the use of Medical Practitioners of the United States, &c. &c.* A new edition improved. By James Thacher, M. D. A.A.S. pp. 796. Boston, 1826.

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8. *A Treatise on Special and General Anatomy.* By William E. Horner, M.D. adjunct Professor of Anatomy in the University of Pennsylvania. 2 vols. 8vo. Philadelphia.

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9. *A Treatise on Physiology applied to Pathology.* By F. J. V. Broussais, M.D. &c. Translated from the French by John Bell, M.D. &c. and R. La Roche, M.D. &c. Philadelphia, 1826. 8vo. pp. 559.

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10. *The London Practice of Midwifery; including the Treatment during the Puerperal state and the principal Infantile Diseases. To which is added, Notes, Plates, and Denman's Aphorisms.* By an American Practitioner. Sixth edition, much enlarged and improved. Concord, (N. H.) 1826. pp. 335.

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11. *Circular and Catalogue of the Faculty and Students of the College of Physicians and Surgeons of the Western District of the State of New-York, in Fairfield, Herkimer County.* Albany, 1827. pp. 8.

From this catalogue we are happy to learn, that the number of Students attending this College has greatly increased since the last year. They now amount to one hundred and forty-four. Rising as this Institution is daily in fame and in the confidence of the public, its learned and able Professors have only to pursue the honourable course which they have hitherto adopted, to make it one of the first Medical Schools in our country.

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12. *Introductory Lecture to a Course of Lectures on Anatomy and Physiology, &c.* By John D. Godman, M.D. 8vo. pp. 44. New-York, 1827.

This Lecture, though containing nothing original, is pretty enough in its way. A note of four pages is appended to it, written in a style of great heat and passion—and containing several statements, the accuracy of which we must beg leave to call in question. As we do not wish to believe this to have been intentional, the only explanation we can give is the fact of Dr. Godman's being a stranger in our city. When he shall have resided a little longer with us, and have had access to better sources of information, we have no doubt he will write with greater coolness and precision.

INTELLIGENCE.

With much pleasure we give place to the following. From our knowledge of Dr. Wagner, as an highly accomplished surgeon and anatomist, we cannot but wish him every success in his undertaking.—Ed.

CHARLESTON ANATOMICAL ROOMS,

For the Private Instruction in Practical Anatomy and the Operations in Surgery.

The subscriber will commence a Course of Dissections and Demonstrations in Practical Anatomy, on the *second Monday in October*, to continue until Spring; and will teach the art of making and preserving Anatomical preparations.

The Surgical Anatomy of all parts concerned, in the important operations, will be dissected and demonstrated; and the mode of performing all the surgical operations, as practised in the English and French hospitals, will be taught to such classes as may offer.

The Rooms will be provided with all the necessary Surgical Instruments, and with every convenience, for the improvement, comfort, and health of the Student.

TERMS.

Fee for the Dissecting Rooms and Demonstrations, - - - - -	$10
Fee for Demonstrations in Surgical Anatomy and Operations, - -	15

Private Pupils will be entered, at my office, in Broad-street, at the following fees; they will be examined three times in each week, upon the several branches of their Medical Education, and be entitled to tickets, for the Dissecting Room and Operations, *gratis.*

Fee for the Winter Season, - - - - - - - -	$ 60
Fee for one Year, - - - - - - - - - - - - -	100
Fee for the whole term of Medical Education, - -	300

JOHN WAGNER, *Surgeon.*

Anatomical Rooms, Queen-street, Sept. 25th, 1826.

N.B. In connexion with the above plan, and in order to afford every facility to the Surgical Student especially, Doctor Wagner has established a private Hospital, at his office, in Broad-street; where he will accommodate Slaves and Coloured Persons affected with such Diseases only as require surgical treatment. The Diseases of the Eye will, in an especial manner, receive particular attention, with the hope, of extending his plan, at some future day, into an Infirmary (such as is now established in New-York and other Cities) for the cure of Diseases of that important organ.—Surgical Patients, from the country, will be received, in like manner, as from the city.

To the Editors of the New-York Medical and Physical Journal.

LONDON, 23d Oct. 1826.

GENTLEMEN,

In compliance with the request of the Secretary for Foreign Correspondence, of the "Medico-Botanical Society of London," and in according with my duty, I have to ask of you the favour of giving the following communication an insertion in your "New-York Medical and Physical Journal."

Respectfully your obdt. humble servt.
WILLIAM ZOLLICKOFFER,
No. 32 Sackville-st. Piccadilly.

To WILLIAM ZOLLICKOFFER, M.D. &c. &c.
Corresponding member of the Medico-Botanical Society of London.

The Secretary of the Medico-Botanical Society of London presents his compliments to Doctor Zollickoffer, and would feel obliged by his procuring an insertion of the following notice of the proceedings of the Society in the New-York Medical and Physical Journal, and any other of a similar nature which he may think proper.

MEDICO-BOTANICAL SOCIETY OF LONDON.

The first general meeting of the seventh session of this Society was held on Friday the 13th of October, 1826, at 8 o'clock P. M.

Sir James M'Gregor, K. T. S. Director General of the Army Medical Board, President, in the Chair.

After the usual business of the Society had been gone through, a letter from His Royal Highness the Duke of Clarence was read, desiring his name to be added as an honorary member, and regretting that his residence at Bushey Park excluded the possibility of his attendance that evening. The Director (Mr. Frost) then delivered his oration, in which he congratulated the Society on the rapid advance it had made during the last session, and the great benefits it had derived from the unwearied zeal which many of its members exerted in its behalf. He also informed the meeting, that their distinguished President had lately resolved that no person shall be admitted to an examination to qualify him to practice in the medical department of the army, without having attended, amongst other branches of study, Lectures on Botany for six months; the salutary effects of which regulation will, in a few years, demonstrate its utility.

Sir James rose to address the Society, and assured them, that he was performing but his duty in enforcing the regulation just mentioned, and, or any other of a similar nature which might conduce to the welfare and promotion of science; and concluded by moving, that the thanks of the Society be given to the Director, and that he be requested to make his excellent oration more public.

The Chevalier Castillo, Consul General for Spain in London, was introduced and admitted a Foreign Member of the Society.

Several letters from distinguished foreigners were read; among whom were, Barons Humboldt and Terussac, Mr. Wyttenbach, and Mr. Jacquin, whose diploma of Honorary Member was entrusted by the President to Mr. Nivenot of Vienna.

A communication from His Britannic Majesty's Vice-Consul for Guatamala, Mr. Schenley, was read, and the meeting adjourned to the 10th day of November, 1826.

J. P. YOSY,
Secretary for Foreign Correspondence.

P. S. The Honorary Fellows of this Society consist of the following distinguished individuals:

Earl Spencer, K. G. President of the Royal Institution.

Sir Humphrey Davy, Bart. President of the Royal Society.

Sir Henry Halford, Bart. F.R.S. F.A.S. President of the Royal College of Physicians.

Sir James Edward Smith, M.D. F.R.S. President of the Linnean Society.

Thomas Andrew Knight, Esquire, F.R.S. F.L.S. President of the Horticultural Society.

William George Maton, M.D. F.R.S. F.A.S. Vice-President of the Linnean Society.

The Officers of the Medico-Botanical Society of London consists of a President, six Vice-Presidents, a Director, a Treasurer, and a Secretary.

The Council, which is composed of fifteen members, includes the President, the six Vice-Presidents, the Director, the Treasurer, and the Secretary.

State Medical License.—Candidates wishing to obtain license to practice Medicine and Surgery, are informed, that the Censors of the State Medical Society for the Southern District will hold their examinations in the City of New-York. They are requested to apply to either of the Censors.

FELIX PASCALIS, M.D.
CHARLES DRAKE, M.D. } Censors.
JOHN B. BECK, M.D.

New-York, January 1, 1827.

TO READERS AND CORRESPONDENTS.

1. For the valuable Reports of Diseases which have been treated in the New-York Dispensary, and which have appeared in several successive numbers of this Journal, we are indebted to Dr. **John J. Graves** of this city.

2. Our next number will contain papers from Drs. **Manley**, **De Leon**, **Webber**, &c. &c. We are, also, promised communications from Dr. **Mussey**, the distinguished Professor of Anatomy in Dartmouth College, &c. &c.

3. In preparation for this Journal, a Review of the Progress of Botany in the United States, containing a particular account of the appropriations made to this object by the State of New-York, &c. &c.

4. Having been frequently inquired of, whether we did not intend noticing a *certain pamphlet*, which has just made its appearance, we deem it proper to state, that this Journal is exclusively devoted to the dissemination of useful knowledge and to sustaining the honour and respectability of the profession. That the course hitherto pursued in the conduct of this Journal has met the approbation of our professional brethren, has been satisfactorily evinced in the liberal patronage which it has received. This patronage, we are happy to say, is daily increasing; and we conceive that we should but poorly consult the respect which we owe to ourselves, or to our numerous friends, by polluting our pages with any notice of the production just alluded to. If the author be not totally lost to all moral sensibility, he will one day regret the numerous and base calumnies which he has circulated against the medical profession.

5. The Alleghany College, Pennsylvania, at their commencement in October 1826, conferred the Honorary degree of Doctor of Medicine upon Dr. **Henry Schneck**, a graduate of the College of Physicians and Surgeons of this city.

6. *University of the State of New-York.*—The two Colleges of Physicians and Surgeons of the University commenced their regular courses of Lectures at the usual period. The number of Students attending the College in New-York is *eighty-eight*, and that of those attending the College in the Western District is *one hundred and forty-four*—making in all *two hundred and thirty-two* medical students attending the University of New-York. We are happy to state too, that the most perfect harmony

has been restored to every department of the University. The College of Physicians and Surgeons in this city, especially, may be considered as in a most sound and wholesome condition. Relieved of the *incumbrances* which have hitherto oppressed this Institution, like a perfect incubus, we hope it has nothing in anticipation but bright days of honour and prosperity. We do not see how, even with ordinary efforts, it can be otherwise. Being the only Medical College in this large and rapidly extending metropolis—patronized by the constituted authorities of the State—under the auspices of a Board of Regents comprising many of our first citizens for rank, learning, and intelligence—this Institution offers advantages equalled by few others in our country.

7. Professor Dana of the College of Physicians and Surgeons of this city, has in preparation a second edition of his excellent work on Chemistry. Of the merits of this work we have had occasion to speak in a previous number, and we are pleased to find that our opinions have been confirmed by judges in every respect competent to decide. It has recently been adopted as the text-book in two of our most respectable Colleges—viz. Columbia and Princeton.

8. We have seen the original drawings of a series of Engravings, illustrative of the different stages of the Small-pox and Varioloid diseases, which will shortly be published by Dr. J. D. Fisher. They are executed with great skill and beauty, and the whole work will be an exceedingly valuable present to the medical profession. We wish the publisher every possible encouragement.

9. *Medical Recorder.*—In justice to the writer, Dr. Fountain, we cannot deny a place to the following card:

A CARD.

"I was not a little surprised to find in the October number of the Philadelphia Medical Recorder a notice of my paper on irritation, in the form of an indecorous and abusive attack, highly evincive of the perverseness and illiberality of the writer's sentiments. The objects of medical journals, as far as I can judge, are to collect and disseminate all improvements in medicine, surgery, &c. Now, if an essay contains no improvements, it certainly has no claim whatever to notice; and the public are only insulted and pilfered of their time and money by being presented with that which is equivalent to nothing. The plan of *reviewing* the articles of one journal does not fall strictly within the province of another, unless the latter be wholly analytical, and not a mere recorder; and to review an essay, evidently for no other purpose but to make a display of one's ability in abusing it, is beneath the character of any man not a professed harlequin. I must be permitted to remind the sage conductors of the Recorder, that only a moderate share of intellect is requisite to censure and disjoint an essay;

and that it is as much easier to destroy than to build, as it is *to borrow whole reviews* than to write them. He who thinks to bolster up a reputation at the expense of other men's, will eventually find himself viewed more in the light of a blustering pest than a man of science.

JAS. FOUNTAIN.

"P.S. Since writing the above note, I have seen the January number of the Recorder, in which I perceive that the continuation of my Essay on Diseases of Irritation is barely noticed, with the view of extracting a solitary case for the benefit of the readers of that all-devouring receptacle of cases, but no information whatever is conveyed to them of the different subjects of which I treat. This omission I should pass over in silence, but the work having fallen in other hands, some show of fair dealing was to have been expected from the desire natural to all *novices*, on their first starting from obscurity, to ingratiate themselves with a public, ignorant of their claims to character or competency. Yet, why should I complain, when there are so many other instances besides my own in which the most gross illiberality, as well as the most shameful ignorance, have been displayed in the conductors of that spiritless journal?

J. F."

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